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TRANSCRIPT OF RECORD

Supreme Court of the United States

OCTOBER TERM, 1932

No. 128

WABASH VALLEY ELECTRIC COMPANY,
APPELLANT,

vs.

RALPH K. YOUNG, ~~FRANK T. SINGLETON~~, JOHN W. McARDLE, HOWELL ELLIS, ET AL., ETC.

APPEAL FROM THE DISTRICT COURT OF THE UNITED STATES FOR THE SOUTHERN DISTRICT OF INDIANA

FILED JUNE 2, 1932

(36,825)

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[fol. 1] [Caption omitted]

[fol. 2]

IN UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF INDIANA, INDIANAPOLIS DIVISION

In Equity. No. 1178

WABASH VALLEY ELECTRIC COMPANY, Plaintiff,

vs.

FRANK T. SINGLETON, JOHN W. MCCARDLE, HOWELL ELLIS, Harvey Harmon, and Calvin F. McIntosh, as Members of the Public Service Commission of Indiana; James M. Ogden, as Attorney General of Indiana, and Harry G. Leslie, as Governor of Indiana, Defendants

BILL OF COMPLAINT—Filed Feb. 27, 1929

Wabash Valley Electric Company, plaintiff in the above entitled cause, complains of Frank T. Singleton, John W. McCardle, Howell Ellis, Harvey Harmon and Calvin F. McIntosh, as members of the Public Service Commission of Indiana, James M. Ogden, as Attorney General of Indiana, and Harry G. Leslie, as Governor of Indiana, defendants, and says:

I

Each of the defendants, Singleton, McCardle, Ellis, Harmon and McIntosh was on January 26, 1929, and at all times herein referred to, and is now, a member of the Public Service Commission of Indiana, and that said Public Service Commission of Indiana is a body created by the statutes of the State of Indiana charged with the duty of regulation and control under said statutes of all public utilities in the State of Indiana, and that among other duties of said Public Service Commission of Indiana and the members thereof, is the duty of approving and determining fair and reasonable tariffs, rates and charges for [fol. 3] the services of utilities in the State of Indiana.

Said Public Service Commission of Indiana will be hereinafter referred to as the Commission.

The defendant James M. Ogden is the Attorney General of the State of Indiana and under the laws of said State is charged with the duty of commencing and conducting suits and proceedings to enforce the orders of said Public Service Commission of Indiana and to recover and enforce fines and penalties imposed by the statutes of the State of Indiana for violation of orders of said Public Service Commission of Indiana.

The defendant, Harry G. Leslie, is Governor of the State of Indiana and is also charged with certain duties with reference to the enforcement of the orders of the Public Service Commission of Indiana.

Each and all of said defendants is officially a resident of Marion County, Indiana, and the defendant James M. Ogden is actually and legally, as well as officially, a resident of Marion County, Indiana.

II

The plaintiff is a corporation organized under the laws of the State of Indiana for the purpose, among other things, of manufacturing, buying, selling and distributing electricity for light, heat and power to cities and towns and the public in general in the State of Indiana as a public utility and was at all times herein referred to and is now engaged in said business under the supervision and subject to the regulation of the Public Service Commission of Indiana under indeterminate permits from said Public Service Commission of Indiana.

[fol. 4] III

This is a suit of a civil nature in equity and is brought for the purpose of enjoining the enforcement of a certain order of the Public Service Commission of Indiana made and approved January 26, 1929, prescribing the rates and charges to be made by plaintiff for its electric service rendered in the City of Martinsville, Indiana, all as hereinafter more particularly alleged, and arises under the Constitution and laws of the United States, in that the rates and charges prescribed in said order are confiscatory of plaintiff's property used and useful in furnishing electric

service to cities and towns and the public in general, and thereby plaintiff is deprived of its property without due process of law, and is denied the equal protection of the laws in violation of its rights under the Fourteenth Amendment to the Constitution of the United States.

The amount in controversy in this suit exceeds the sum of $5000.00, exclusive of interest and costs.

IV

Plaintiff owns and operates plants and properties located in Vigo, Warren, Fountain, Morgan, Tippecanoe, Parke, Putnam, Owen, Clay, Green and Sullivan counties, Indiana, utilized by it in the production, transmission and distribution of electricity and the sale thereof to cities and towns and the public in general in said counties. It owns and operates power plants in the cities of Martinsville, Spencer, Sullivan, and Clinton, Indiana, and furnishes electric service to said cities and to approximately fifty other cities, towns and communities in said counties above named, and it supplies electricity to numerous industrial plants and rural individual customers not located within the corporate limits of cities and towns. It buys electricity from the Indiana Electric Corporation which has a large [fol. 5] and modern generating plant in the coal fields on the Wabash River in close proximity to the territory served by plaintiff, but it does not sell to said Indiana Electric Corporation any current. It sells electricity to the Illinois Power & Light Company, Interstate Public Service Company, Northern Indiana Power Company, and Attica Electric Company and purchases electricity, from time to time, from said corporations, and also sells electricity to the cities of Covington, Veedersburg and other municipalities for resale by said municipalities over their own distribution systems to the inhabitants of said municipalities. It supplies approximately 18,000 individual customers with electricity scattered over the eleven counties hereinbefore named.

Its purchases and sales from and to said Illinois Power & Light Company, Interstate Public Service Company, Northern Indiana Power Company, and Attica Electric Company are under contracts and agreements on an interchange basis and said interconnections make available to

the communities and customers all the power plants, facilities and resources of the plaintiff, and also the power plants, facilities and resources of the connecting utilities for regular or emergency service, so that there may be as nearly as practical a continuous and uninterrupted supply of power for service to and development of the various communities and industries served by plaintiff within its territory, thus giving all the communities equal opportunities to attract industries and enjoy the benefits of as nearly perfect electric service as modern engineering methods and practices can give them.

In addition to its electric properties, plaintiff also owns and operates a few small gas and water plants not involved in the proceeding before the Commission herein referred to and not involved in this proceeding and all allegations [fols. 6-8] herein as to property, income, costs or otherwise apply to and include only plaintiff's electric property and business.

V

On March 16, 1927, seventeen citizens of the City of Martinsville, Indiana, electric patrons of plaintiff at Martinsville, filed with the Public Service Commission of Indiana their petition asking for a reduction of electric rates in Martinsville, Indiana. On said date, plaintiff had on file with the Public Service Commission of Indiana tariffs, schedules and rates for its service, which said tariffs, schedules and rates did not yield a net revenue in excess of a fair return upon the property of plaintiff used and useful in its electric service, but, notwithstanding said fact, plaintiff, while said petition was pending, filed a new schedule of rates and charges for Martinsville, which became effective July 1, 1927, which new rates and schedules reduced plaintiff's gross revenue in Martinsville during the following year in the sum of $11,469.00 below the revenue which it would have realized in the same business under the preceding rates. Thereafter from time to time hearings were held upon said petition and on January 26, 1929, the Public Service Commission of Indiana made and approved an order and fixed and designated therein schedules of rates and charges to be put into effect by plaintiff upon all billings for service rendered at Martinsville on and after February 1, 1929, which said schedules of rates and charges were as follows:

"Here appears the schedule of rates contained in the order of Jan. 26, 1929, attached hereto as Exhibit A".

[fol. 9] Thereafter on February 7, 1929, plaintiff filed with said Commission its petition for a rehearing of said cause, in which said order was entered, which said petition was overruled and rehearing denied by a supplemental order of said Commission in said cause made and approved February 15, 1929. A certified copy of said order of said Commission, dated January 26, 1929, is attached hereto, made a part hereof, marked Exhibit A; and a certified copy of said supplemental order of February 15, 1929, is attached hereto, made a part hereof, marked Exhibit B.

[fol. 10] VI

On said 26th day of January, 1929, the plaintiff owned property used and useful in the generation, transmission, distribution and sale of electricity of a value not less than $5,026,437.59, and in the year 1928 its gross revenue was $1,691,154.84, under rates and schedules then in force and effect, and its total operating expenses, including taxes and 4% depreciation, was $1,412,320.63, leaving a balance available for return on its electric property of $278,834.21, which sum is equivalent to a return of only 5.54% on the value of its used and useful property at the time, which said return is inadequate, unfair and unreasonable.

Effective with December 1928 billings, plaintiff filed with the Commission and put in force new tariffs and schedules of electric rates and charges for the cities of Clinton and Greencastle, Indiana, which are still in effect. Clinton is the largest city served by plaintiff, but prior to said change of rates, the electric rates effective there were higher than the rates at that time in effect in Martinsville. Prior to said change the electric rates at Greencastle had been the highest in the plaintiff's system for cities of its size and higher than rates then in effect at Martinsville. Said changes were made in order that the electric rates for said cities be not discriminatory, and said changes and new rates and charges were approved by the Commission. Had said new rates and charges at Clinton and Greencastle been in effect during the entire year 1928, plaintiff's gross revenue for said year would have been reduced in the sum of $32,-

001.70 by reason thereof, and had said rates and charges for Martinsville, fixed by said order complained of, been in [fols. 11 & 12] effect during the year 1928, plaintiff's gross revenue would have been further reduced by reason thereof in the sum of $14,566.33. Applying plaintiff's rates and charges in effect at the date of the order complained of and applying to Martinsville business the rates and charges therein prescribed, plaintiff's gross revenue in 1928 would have been $1,644,586.81, and its net revenue available for return would have been $232,266.18, which is equivalent to a return of only 4.62% on the value of its property used and useful in said service.

Said rates and charges prescribed and fixed as aforesaid by said Public Service Commission of Indiana are therefore confiscatory and take plaintiff's property without due process of law and violate plaintiff's rights under the Fourteenth Amendment to the Constitution of the United States.

* * * * * * *

[fol. 13] VIII

On January 26, 1929, and during the year 1928, the plaintiff's actual cost of all current delivered to gateways and sold to Northern Indiana Power Company and Attica Electric Company, including 4% depreciation and 8% return upon plaintiff's used and useful power system property (not [fol. 14] including any local property) was $184 per Kw. H., and the actual cost of all current delivered by it to its several distribution gateways (not including current sold to Northern Indiana Power Company and Attica Electric Company) including 4% depreciation and 8% return upon plaintiff's used and useful power system property was $.024996.

Therefore the order complained of, fixing a Martinsville gateway charge of only $.0172 per Kw. H., used in fixing and prescribing the rates and charges for Martinsville, is confiscatory and takes plaintiff's power system property without due process of law and violates plaintiff's rights under the Fourteenth Amendment to the Constitution of the United States.

IX

[fols. 15-17] On December 31, 1928, the fair value of the power system property used and useful in the general power

system of plaintiff (exclusive of so-called local property) was $3,360,999.16, and a fair return thereon is 8%, which would amount to $269,437.93; that on said December 31, 1928, the cost of reproduction new of plaintiff's depreciable power system property used and useful in its said business was $2,778,864.16; that a fair rate of depreciation thereon is 4%, which would amount to $111,433.57, or a total for depreciation and return of $380,871.50. During the year of 1928, plaintiff delivered 71,783,643 Kw. H., which at one-third cent per Kw. H., for depreciation and return upon power system property, would yield $239,278.81 to take care of $380,871.50, which is the fair and reasonable amount necessary for depreciation and return on said property.

* * * * * * *

[fol. 18] XII

The electricity purchased from and sold to the Illinois Power & Light Company and the Interstate Public Service Company by plaintiff at all times here involved has been, and will continue to be, negligible, but plaintiff has purchased at all times here involved, and will continue to purchase, electricity from the Indiana Electric Corporation in very large quantities and has paid and is paying therefor at the rate of one cent per Kw. H. In the period ending July 31, 1927, plaintiff's total deliveries of electricity amounted to 51,457,770 Kw. H., of which 21,335,114 Kw. H. were sold to the Attica Electric Company and the Northern Indiana Power Company (16,538,374 Kw. H. to Northern Indiana Power Company and 4,796,740 Kw. H. to Attica Electric Company) at a price of 1¼ cent per Kw. H., and the remainder of 30,122,656 Kw. H. were delivered to the numerous so-called "gateways" of plaintiff for distribution and sale to consumers in local areas, and of said electricity delivered to gateways of plaintiff only 2,180,124 [fol. 19] Kw. H. were delivered to the Martinsville gateway for Martinsville consumers. This was the period and these were the Kw. H. figures which the Commission used and considered in determining the gateway price of electricity delivered to the Martinsville gateway by plaintiff. In the calendar year 1928, the corresponding figures were as follows:

Total Kw. H. sold and delivered by plaintiff		71,783,643
Total Kw. H. sold by plaintiff to Northern Indiana Power Company and Attica Electric Company:		
Northern Indiana Power Company	31,891,500	
Attica Electric Company	5,795,720	
		37,687,220
Total Kw. H. delivered to so-called gateways		34,096,423
Total Kw. H. delivered to Martinsville gateway		2,511,125

The electricity purchased from the Indiana Electric Corporation is delivered to the plaintiff at 66,000 volts at Clinton, Indiana, and plaintiff has a 66,000 volt transmission line extending from Clinton, Indiana, via a point near Attica, Indiana, to a point near Lafayette, Indiana, at which points it makes delivery of electricity sold to the Attica Electric Company and the Northern Indiana Power Company, respectively, at 66,000 volts, whereas electricity delivered by plaintiff to its various distribution gateways for service to its own customers passes over and through interconnecting transmission lines, transformers and substations and is delivered to said gateways at reduced voltage. Transmission and line losses upon the electricity transmitted from Clinton to points of delivery to said Attica Electric Company and Northern Indiana Power Company amount to only about 1½%, whereas, the transmission and line losses on the system as a whole amount to 10.7%. Said 66,000 volt transmission line from Clinton to points of delivery to the Attica Electric Company and Northern Indiana Power Company is an integral part of its general power transmission system and has always been and will continue to be used and useful and required [fol. 20] in its electric service through numerous gateways to its local distribution areas. If all sales of energy to the Attica Electric Company and to the Northern Indiana Power Company were discontinued, all of the general power distribution system of the plaintiff including said 66,000 volt transmission line used in making deliveries of electricity to the Attica Electric Company and Northern Indiana Power Company, as aforesaid, would continue in

existence and would be required by the plaintiff for its local customers. The sale of energy to the Attica Electric Company and to the Northern Indiana Power Company at 1¼ cent per Kw.H. involves no additional expense whatever to the plaintiff except the one cent per Kw.H. which it pays for the energy thus sold. The price of 1¼ cent per Kw.H. charged by the plaintiff to the Attica Electric Company and to the Northern Indiana Power Company is essentially a competitive one, and represents the highest practicable amount which those companies can or will pay for energy in such quantities. The utilization by plaintiff of its existing power transmission system for earning additional net revenue, at no additional expense, operates to lighten the burden which would otherwise fall upon plaintiff's local customers of carrying the cost of maintaining its general power transmission system. It represents an activity on the part of plaintiff which it is under no obligation to undertake and which, when undertaken and discharged, is wholly for the benefit of its other customers. Under these circumstances the price of 1¼ cent charged by plaintiff to the Attica Electric Company and the Northern Indiana Power Company for such energy sold to them is reasonable, and the energy purchased by plaintiff and resold to them should be segregated from plaintiff's other operations except to the extent that the profit made by plaintiff on such transactions constitutes a credit, for the benefit of plaintiff's other consumers, to the expenses otherwise incurred by plaintiff in the ownership and maintenance of its general power system.

[fol. 21] Said sales to said Attica Electric Company and Northern Indiana Power Company have been in very much larger quantities than to any of the numerous gateways to direct distribution areas, and are made pursuant to interchange agreements, whereby electricity is sold and will be sold to plaintiff by said Attica Electric Company and Northern Indiana Power Company as hereinbefore alleged at said price of 1¼ cent per Kw.H. and thereby plaintiff has available to it electricity and service from said Attica Electric Company and Northern Indiana Power Company whenever and for whatever reasons same is required. By reason of the facts aforesaid, the sale price of 1¼ cent to the Attica Electric Company and the Northern Indiana Power Company of electricity, purchased from the Indiana

Electric Corporation at one cent, is a fair and reasonable charge for said electricity to said Attica Electric Company and Northern Indiana Power Company.

Plaintiff believes and alleges that hereafter the sales by it of electricity to the Northern Indiana Power Company will be greatly reduced and will be negligible because said Northern Indiana Power Company has within the last few months made interconnections with other large sources of power and plaintiff believes and alleges that hereafter said Northern Indiana Power Company will obtain from said sources a large part of the electricity that it has heretofore obtained from plaintiff.

By reason of the facts aforesaid, it is unfair and unreasonable to fix a gateway price based upon the average cost of all electricity sold and delivered by plaintiff, which was used by the Commission as a basis in fixing said price. In order to determine a fair gateway price, sales to said Attica Electric Company and Northern Indiana Power Company should be eliminated from revenue and power system cost [fol. 22] should be credited with all revenue therefrom, and upon said basis the average cost per Kw.H. of all electricity sold by plaintiff in the year 1928, except that sold to the Northern Indiana Power Company and the Attica Electric Company, including 4% depreciation and 8% return upon general power property only (excluding all property inside the several gateways and used locally for local distribution) was $.024996.

XIII

Said Commission determined the gateway cost of the total amount of the electricity sold by plaintiff during the year ended July 31, 1927, to be $.0172, and used said 1927 gateway cost as the basis for rates and charges ordered for Martinsville in 1929, and said $.0172 included only one-third cent per Kw.H. for return and nothing for depreciation upon general power property, whereas, in truth and in fact, the average cost of all electricity delivered and sold by plaintiff, including provision for 4% depreciation and 8% return upon general power system property during said period, was $.021, and for the calendar year 1928 the average cost to plaintiff of all electricity delivered and sold by it, including provision for 4% depreciation and 8% return upon used and useful general power system property, was

$.0184 per Kw.H. For the period of twelve months ending July 31, 1927, the average cost of all electricity sold by plaintiff, excluding sales to said Northern Indiana Power Company and said Attica Electric Company and including provision for 4% depreciation and 8% return upon general power system property was $.0270797, and for the calendar year of 1928, the corresponding figure was $.024996.

XIV

On December 31, 1928, and at the date of the order of the Public Service Commission fixing rates and charges for [fol. 23] service for plaintiff in the City of Martinsville herein complained of, the property of plaintiff used and useful locally and exclusively in said City of Martinsville for its business there was of a fair and reasonable value of not less than $141,520.38. For the calendar year of 1928, plaintiff sold and delivered to its Martinsville customers affected by said order 2,511,125 Kw. H. of electricity, which said services, based upon an average gateway cost of $.024996 and including a 4% depreciation charge on used and useful local property of plaintiff, cost plaintiff $96,680.79, and produced a revenue of only $95,105.47, leaving an operating deficit of $1,575.32 upon the rates then in force, and said revenue under the rates fixed and prescribed in said order would have been reduced in the sum of $14,566.33 and would have left an operating deficit, after application of the rates authorized in said order, of $16,141.65. If said electricity had been charged to Martinsville at a gateway price of $.0184, said rates and charges fixed by said order would have yielded only $421.73 for return upon Martinsville local property of plaintiff, and if said electricity had been charged against Martinsville at the gateway price of $.0172 fixed by said Commission and had said rates and charges fixed in said order been then in effect, the revenue would have been such as to yield only the sum of $3,435.08 as return upon the fair value of the property of plaintiff used and useful locally in the service of Martinsville, which is an inadequate return even upon the value of $87,000.00 fixed by said Commission in said order as the value of the property used and useful locally in Martinsville on November 30, 1927.

[fol. 24] Therefore plaintiff says that even according to the method used by said Commission in fixing said rates and

on the basis of the gateway price fixed by the Commission in said order and upon the basis of a fair return upon the Martinsville local property used and useful in said service, at the value found by the Commission, plus additions and betterments actually made by plaintiff after the date of the Commission's valuation, said rates and charges fixed by said Commission in said order complained of are inadequate, unfair and unreasonable and are confiscatory and take plaintiff's property without due process of law and violate plaintiff's rights under the Fourteenth Amendment to the Constitution of the United States.

XV

The rates and schedules of plaintiff in force in the City of Martinsville prior to January 26, 1929, will not yield plaintiff more than a reasonable return on the property of plaintiff used and useful in giving said service, and together with all the other rates and charges of plaintiff throughout the balance of the territory served by it, will yield plaintiff a return upon all of its property, used and useful in the service it renders throughout its territory, which is less than a fair and adequate return upon the fair value thereof. The rates and charges in the City of Martinsville prior to January 26, 1929, were lower than its rates and charges in any other city or town served by plaintiff except Clinton, notwithstanding the fact that said City of Martinsville is so situated that service to it is more difficult and more expensive than the average service of plaintiff to cities and towns throughout its territory, and notwithstanding the fact that the load factor in the City of Martinsville is much more unfavorable than the average load factor of the system of plaintiff as a whole. The City of Martinsville could not be [fol. 25] served from the generating plant now located in the said City, and if said City of Martinsville were served exclusively from an adequate isolated plant located in the City of Martinsville, the cost of service to the City of Martinsville would be substantially higher than under any calculation herein used.

XVI

Plaintiff has no adequate remedy at law.

XVII

Unless a temporary restraining order and a temporary injunction are granted herein, plaintiff will, on or about March 1, 1929, be compelled to bill its customers for all service rendered at Martinsville on and after February 1, 1929, upon the basis of the rates and charges fixed in said order complained of, and before a hearing for a temporary injunction herein and before a final hearing can be held herein substantial sum will be immediately and irreparably lost to plaintiff by reason of the reduced and inadequate rates and charges provided by said order.

Wherefore plaintiff prays

1. That a writ of subpœna issue from this Court directed to the defendants, and each of them, requiring them, and each of them, on a day certain therein named to appear before this Court and answer all and singular the matters herein averred, but not under oath, answer under oath being hereby expressly waived.

2. That a day be fixed for preliminary hearing on the question of a temporary injunction, and that upon such temporary hearing said defendants, and each of them, be temporarily enjoined and restrained, pending the final determi- [fol. 26] nation of this case, from enforcing or attempting to enforce the rates and charges fixed by said order complained of, and from interfering in any way with the enforcement and collection by plaintiff of the rates and charges established by plaintiff and in effect prior to said order of January 26, 1929.

3. That in order to prevent immediate and irreparable injury, loss and damage to plaintiff, as hereinabove set forth, a temporary restraining order be issued restraining the defendants, and each of them, and all other persons, as above prayed, until a day to be set by the Court and until the hearing and determination of said application herein for a temporary injunction.

4. That upon final hearing, said temporary injunction be made permanent and that said order of the Public Service Commission, complained of, be adjudged and decreed to be in violation of the Constitution of the United States and

null and void, and that said defendants, and each of them, be permanently enjoined from taking any steps or proceedings against the plaintiff, its directors, officers, agents and employees to enforce any penalty or other remedy for disregarding the rates and charges prescribed by said order.

5. And for such further relief as may be just and equitable in the premises.

Wabash Valley Electric Company, by L. B. Andrus, President. S. C. Kivett, Glenn Van Auken, Fesler, Elam & Young, Solicitors for Plaintiff. Glenn Van Auken, J. W. Fesler, Harvey J. Elam, Howard S. Young, of Counsel for Plaintiff.

[fol. 27] STATE OF INDIANA,
County of Marion, ss:

Lucius B. Andrus, being first duly sworn, says upon his oath that he is the President of the Wabash Valley Electric Company, plaintiff herein; that he has read the foregoing bill of complaint subscribed to by him and knows the contents thereof, and that the same is true of his own knowledge, except as to the exact figures therein representing values, revenue, costs, expenses, production, sales and deliveries of electricity; that said exact figures representing value are based upon inventories and appraisal made by Spooner & Merrill, plus cost of subsequent additions and betterments taken from the books and records of the Company by Louis B. Schiesz, Treasurer of the Company in charge of same; that affiant is informed by said Spooner & Merrill that said values in their inventories and appraisal are true and correct, and is informed by said Schiesz that the cost of subsequent additions and betterments added to said Spooner & Merrill appraisal are the true and exact cost thereof as disclosed by the books of the plaintiff; that affiant has been engaged directly and continuously for over twenty-five years in the construction, operation and development of electric utilities in Indiana and is acquainted with utility property values and costs and knows thoroughly and at first hand the property of the plaintiff; that based upon said appraisals of Spooner & Merrill and said figures from said Schiesz as to the cost of subsequent additions and betterments and upon his own knowledge and ex-

perience in the utility business, affiant believes and is of the opinion that the values stated in said bill of complaint are true and correct; affiant is informed by said Schiesz that the figures alleged in said complaint as to revenue, costs, expenses, production, sales and deliveries of electricity have been taken from the books and *and* records of [fol. 28] said Company and that they are true and correct, and affiant believes same to be true and correct.

L. B. Andrus.

Subscribed and sworn to before me this 26th day of February, 1929. My commission expires June 19, 1930. P. L. Burford, Notary Public. (Seal.)

[fol. 29] EXHIBIT "A" TO BILL OF COMPLAINT

STATE OF INDIANA:

PUBLIC SERV'CE COMMISSION OF INDIANA

No. 8894

In the Matter of the Petition of

JAP JONES et al. and CITY OF MARTINSVILLE, INDIANA, as Intervenor,

vs.

WABASH VALLEY ELECTRIC COMPANY

For Reduction of Electric Rates and Gas Rates in Martinsville, Indiana

FINAL ORDER—Approved January 26, 1929

Power System — Local Distribution Systems — Considered Separately.—The general power system and the general distribution system of an electric utility that serves several different cities, towns and communities should be considered separately from the local distribution systems and works located in said several cities, towns and communities in a rate case inaugurated by petition of patrons of one of said cities, towns and communities.

Depreciation Fund—Must Not Be Duplicated.—When fund for depreciation is provided by the terms of mortgage upon the property of a public utility and when such fund is shown to be adequate, additional allowance for depreciation can not be justified and should not be allowed.

Fair Value—No Single Class of Evidence Controls.—No single class evidence of value is controlling to the exclusion of other evidences of value in determining fair value.

Indiana Law—Right of Municipality to Petition.—The Indiana public utility law is founded upon the right of any ten patrons, any municipality, etc. to petition the Public Service Commission for adjustment of rates or service. Any practice that would obstruct this right would violate the spirit, if not the letter, of the law. The valuation of all of the utility's property, used in serving several towns, cities, etc. and including the utility property in such towns, cities, etc., would be such obstruction and would do violence to spirit of the public utility act.

[fol. 30] **New Construction—Operating Revenues Not Used for.**—Revenues paid by patrons, regardless of the form in which paid, can not be used lawfully for new construction as permanent investment.

Depreciation Fund—Temporary Investment in New Construction.—Temporary investment of depreciation fund in new construction is construed to mean a period of not more than twelve months.

Fair Value—$87,000.00, Including Intangibles.—Fair value of the property used and useful in Martinsville, including intangibles, is found to be $87,000.00 as of November 30, 1927.

Annual Revenues—Reduced $25,000.00.—Annual revenues, as compared with the revenues for the year ended July 31, 1927, will be reduced $25,000.00 per year.

Rates—Active Room Basis—Optional.—The Wabash Valley Electric Company is required to put in effect an optional rate schedule, based upon the active room basis, and to keep such optional rate in effect until further order of the Commission.

Appearances:

For Petitioners: Barnes & Johnson, by Fred B. Johnson, Indianapolis, Indiana; Ralph K. Lowder, City Attorney, Martinsville, Indiana; O. C. Toner, Martinsville, Indiana.

For Respondents: Fesler, Elam & Young, by J. W. Fesler, Indianapolis, Indiana; Glenn Van Auken, Indianapolis, Indiana; Bowers, Feightner & Bowers, by Fred H. Bowers, Huntington; S. C. Kivett, Martinsville, Indiana.

SINGLETON, Chairman; HARMON, Commissioner:

Seventeen citizens of the City of Martinsville, Indiana, patrons of the Wabash Valley Electric Company at Martinsville and vicinity in the use of electric current and gas, filed with the Public Service Commission, on March 16, 1927, their petition as follows:

"The following named patrons of the Wabash Valley Electric Company, of Martinsville, Indiana, hereby petition your Honorable Body for reduction of electric and gas rates in Martinsville, Indiana."

[fol. 31] The first date of hearing was set for June 20, 1927. Upon the plea by the utility that preparations for hearing could not be completed by that time, by agreement of the parties postponement of date was had to July 12, 1927, at Martinsville. In the meantime the petitioners and other citizens of Martinsville and the respondent utility conferred in an effort to agree upon rates. These conferences were without success.

On July 7, 1927, the utility offered for filing with this Commission a preliminary optional schedule of rates for electric service, said optional rate schedule being on the basis of active rooms and being usually referred to as the "active room basis" for electric rates. As a result of this preliminary optional rate schedule being filed, the majority of the petitioners agreed with the utility to further postponement of date of hearing from July 12, for the purpose of obtaining the experience afforded by this optional rate schedule.

On July 9, 1927, this Commission approved an order based upon the above agreement and fixing Tuesday, November 6, 1927, as the time to which such hearing should be postponed. Later it was found necessary to change the date to November 7, 1927, and this was done.

The order approved July 9, 1927, approved the filing of the active room, preliminary, optional schedule; denied

authority for respondent to put in effect certain rules filed with said schedule until such rules should be approved by this Commission; required the utility to report monthly consumers' data, setting forth the experience of the utility and its patrons with the rates provided in said active room schedule; required the utility to file an amended schedule applicable to power consumers and especially applicable to the demand charge for such consumers, and to provide a rate applicable to use of current by large users of light, such as sanitariums. In the approval of this order with the above provisions all members of the Commission concurred.

Consistent with the proceedings outlined above, hearing was called in the City Building at Martinsville, Indiana, at 10:00 o'clock A. M., November 7, 1927, all the parties being present and participating. Prior to such date respondent had filed a motion that petitioners be required to make petition more specific. Omitting caption and signatures, said motion was in words and figures, as follows:

"Comes now the Wabash Valley Electric Company, respondent in the above numbered cause, and moves the Commission to require petitioners to make their petition more specific herein in the following particulars and each of them, separately and severally, to-wit:

"1. That petitioners be required to state what rates, tolls, charges, schedules, joint rate or rates, in which petitioners are directly interested are in any respect unreason-
[fol. 32] able or unjustly discriminatory.

"2. That petitioners be required to state specifically what regulations, measurement, practices or act affecting or relating to the service are in any respect unreasonable, unsafe, insufficient or unjustly discriminatory.

"3. That petitioners be required to state specifically what service is inadequate or that can not be obtained.

"4. That petitioners be required to state specifically some grounds for a complaint as set out and authorized by the statute governing hearings before the Public Service Commission.

Memorandum

"It will be observed that the petition herein states no cause for a hearing as required by the statute. The peti-

tion purports to be by patrons with a general request that the Public Service Commission reduce gas and electric rates in Martinsville, Indiana. This does not raise any question of fact to be investigated. There is not a claim that the rates are too high; that they are unreasonable; or in any particular improper. The Commission, the utility, and the public are entitled to know just what issues are to be presented.

"We respectfully submit that the motion be sustained."

At the beginning of the proceedings this motion was discussed at considerable length and petitioners were required to file such amended petition. Amended petition was filed by petitioners in words and figures, as follows:

"Come now the petitioners and the City of Martinsville in said above entitled cause and by way of answer to respondent's motion to make the petition more specific, say:

"That the electrical rates, tolls, charges, schedules, joint rate or rates of the respondent charged its consumers in the City of Martinsville are unreasonable and excessive in that the rates produce a gross income or net revenue which provides more than an adequate return on the fair value of the property of respondent devoted to the use of the public in the City of Martinsville, Morgan County, Indiana."

Respondents filed their answer to such amended petition and this answer was debated at considerable length. The answer was as follows:

[fol. 33] "Comes now the respondent, Wabash Valley Electric Company, and an amended petition having been filed after 1:45 o'clock P. M. of Monday, November 7, 1927, now at 10:00 o'clock A. M. of Tuesday, November 8, 1927, reserving all exceptions and without waiving any right to have a reasonable time in which to file an answer to said amended petition and prepare for a hearing on said amended petition, and expressly asserting and claiming the right to further time in which to answer said amended petition and to file intervening or cross-petition by respondent or other interested parties; and specifically stating that it is impossible for respondent to fully and properly present by answer or otherwise at this time the rights of respondent and consumers other than the petitioners;

respondent in an effort to comply with the demand of the sitting Commissioners and hereby giving notice that further answers and pleading may be presented herein, tenders three separate paragraphs of answer to said amended petition herein and asks that the same be accepted by the Commission upon the conditions herein stated, which said paragraphs are as follows:

Paragraph I

"Respondent for answer to the amended petition herein denies each and every allegation in said amended petition contained.

Paragraph II

"The respondent, for a second paragraph of answer to the amended petition herein, alleges and says that the City of Martinsville and territory adjacent thereto is one of the component parts of the territory served by the Wabash Valley Electric Company and receives electrical energy from various sources of supply as now provided by said system as a whole, and has the use and benefit of property used and useful outside the corporate limits of the City of Martinsville, and respondent further says that the rates, tolls, charges and schedules for electrical service as charged in the City of Martinsville, Indiana, and now in effect, are not unreasonable or excessive.

"Wherefore respondent asks that the claims of petitioners be disallowed.

Paragraph III

"The respondent for a third paragraph of answer to amended petition herein alleges and says: That it is a public utility as the same is defined by the laws of the State of Indiana and as such utility is now and has been for years last past engaged in the furnishing of electric service for residences, commercial and power purposes in a territory served by respondent comprising more than fifty communities, cities and districts and, in addition to said services, furnishes large quantities of electrical energy for the operation of mines, gravel pits, and other industries outside of any municipal corporation.

[fol. 34] "That said respondent obtains its electrical energy by purchase from inter-connecting transmission lines owned and operated by other corporations and also has and maintains four plants for generating electric current for the use of the entire system in cases of emergency and when otherwise required. That said plants are maintained at the cities of Martinsville, Spencer, Sullivan and Clinton, Indiana, and the value and operating expenses and taxes of said plants are charged to the general power costs of said Wabash Valley Electric Company system. That said costs are so charged for the reason that said several generating plants are maintained and operated for the use of the entire system and not for any one district or community.

"That in connection with said business, the respondent owns, maintains and operates numerous transmission lines interconnecting the various communities, districts and power sources and so maintains the same and has such connections that it is possible to have electrical energy from different generating sources and interconnecting points and all are used and useful in performing its service of furnishing electrical energy to the various cities, towns and districts and other uses of its service. That by reason of said fact, it is impossible to fix a specific cost to any community or district without considering it in its relation to all other districts, communities and persons served by said respondent throughout its said system. That without said interconnecting system and interdependent relations as herein described it is impossible to furnish the kind and character of service as now furnished within the rules of reasonable economy and with respect to natural equities and in such manner as to furnish equal opportunities for homes, factories, commercial and other uses. That in addition to said generating and transmission properties, said respondent has and maintains a distributing system confined largely to the several municipal corporations and territory adjacent thereto. That one of the territorial districts as served by said respondent is what is known as the Martinsville District, which covers the territory within the corporate limits of Martinsville and certain territory adjacent thereto, and in connection with said service respondent has and maintains an office in the City of Martinsville to operate said service and care for said proper-

ties and to do any and all things necessary and proper in connection with the furnishing of electric service in said district.

"Respondent further alleges and says that prior to July, 1927, respondent had in force, by and with the approval of the Commission, a schedule of rates and charges for electric service in said Martinsville District. That said schedule of rates and charges were based upon what is generally known as the Block system. That in the light of experience and the development of the electric service generally, and the increased use of electrical appliances, it became and is generally known that in order to furnish electric service for such appliances as well as light, the said schedule of rates as heretofore used can not be maintained and give equal opportunities to the various classes of homes without unfair discrimination and can not be [fol. 35] maintained consistant with economic principles for operating a utility such as respondent and can not be operated on principles of natural equity and fair dealings to the several districts served.

"That because of the facts as herein alleged, long before the filing of the original petition herein, respondent began an extensive study of schedules and plans for furnishing electric service with a view of placing in effect schedules of rates which would protect the equities of all of its consumers and the several districts served, and furnish equal opportunity, without unreasonable discrimination, and at the lowest practical cost, and in a manner to encourage the use of electrical appliances consistent with the needs of the communities served, and in such manner as to serve its different patrons and its different districts without unfair discrimination either as between the user in any district or as between the several districts.

"That prior to July 9, 1927, after the filing of the original petition herein, respondent did prepare and file with the Commission a schedule of rates for electric service in the district of Martinsville as the same was then applied to residence service and also filed rates covering service for commercial use, sanitariums and power purposes, all of which said rates and schedules are now in force under the order of the Public Service Commission, subject to change upon a final hearing and after observation of results over a reasonable trial period, which said schedule

of rates as now on file is now referred to and made a part of this answer the same as if written out in full as a part hereof.

"Respondent further says that said schedule of rates for residence service has been in force and under observation for current consumed beginning July 15th, and readings of August, September and October 15th. That respondent is carefully noting the results of said schedule and rates as applied to the several services and all classes of users in said district to which said rates apply. That in order to fully and fairly determine the practical result of said rates, it will be necessary to have a practical test of the same over a period of time and actual conditions as the same varies from month to month and season to season and that a satisfactory test of said rates can not be had under a total trial period of six months.

"Respondent further says that as a result of scientific studies of rates and the practical experience to this date and the observations made, it believes and now alleges the facts to be that said schedules of rates as filed and put into force temporarily by the Commission will result in a reduction of cost to the electrical consumers of said district of from $10,000.00 to $15,000.00 per year and that the reduction to consumers would be distributed fairly and equitably to the several services and to the several con- [fol. 36] sumers in the different services and without unjust discrimination.

"Respondent further alleges the facts to be the that said schedule of rates will make possible the use of electrical appliances in all classes of homes giving to the three, four and five-room houses equal opportunities with the larger houses and at a cost that will permit the general use of said appliances consistent with practical home economies.

"Respondent further says that the reductions so accomplished are such as will reduce temporarily the income of said utility below a fair and unreasonable return upon the value of its property used and useful in performing the service, but said utility asks for the adoption of said rate for the reason that it believes, and now alleges the facts to be, that with said rates greater use can be made of electric service and under conditions where the same can be served by the utility at the low cost and will finally be sufficient to provide a fair and reasonable return upon the value of its

property used and useful in performing the service and without unjust discrimination to any class of users and without unjust and unreasonable discrimination as between the several districts or communities served by respondent.

"Wherefore respondent respectfully asks that the matters and things herein alleged be inquired into that such additional time for observation and experience be fixed as in the judgment of the Commission the facts warrant and, upon a final determination of this cause, the form of schedule now temporarily in force be made permanent with such changes in the amount in the scale of rates now fixed in said schedule as the evidence may show are necessary, if any, in order that the rates may be just and reasonable and such as will furnish equal opportunities and distribute the economic advantages of said rates fairly among the several classes of users and without unjust discrimination to any other district or community served by respondent."

The first session of this hearing continued through November 7 and 8. During this hearing petitioners introduced evidence. It was agreed by petitioners that respondents would not be required at that time to cross-examine these witnesses, because petitioners agreed to accept respondent's representations that it had not completed its appraisals, was not ready to enter into hearing and, therefore, could not enter into hearing with prospect of completing the same.

Respondent had moved that ten days be given in which to respond to the amended petition. This motion was denied, the amended petition was accepted and respondent was given an exception to said ruling.

[fol. 37] Before the introduction of evidence by petitioners, an opening statement was made by O. C. Toner in behalf of petitioners and by S. C. Kivett in behalf of respondent.

Witnesses of petitioners examined were Earl L. Carter, chief engineer of the Public Service Commission of Indiana; Robert L. Gwin, accountant then connected with the accounting department of the Public Service Commission of Indiana, having been in charge of the audit made by the Commission's accounting department of respondent's books and records, and Lawrence Carter, certified public accountant, who identified petitioners' Exhibits Nos. 3 to 8 inclusive.

Cross-examination by respondent of above witnesses was postponed to time of subsequent hearing.

The date for subsequent hearing was agreed to by all the parties as January 9, 1928, the same to be held in the City Building at Martinsville, Indiana. At the time agreed upon public hearing was resumed. Commissioner Harmon joined the hearing Commissioner during all of the sessions beginning January 9. During this hearing all of the witnesses who testified for petitioners at the preceding session were questioned by respondent in much detail. In addition, the following persons offered their testimony in behalf of respondent: Adam Gschwindt, superintendent of the electric utility at Rockford, Illinois; L. B. Schiess, Indianapolis, treasurer and a director of the Wabash Valley Electric Company, Northern Indiana Power Company, the Indiana Service Corporation, the Attica Electric Company and other utility companies affiliated with respondent; B. E. Miller, Madison, Wisconsin, introduced as an expert in electric rates; J. F. McGuire, Fargo, North Dakota, manager of the Union Light, Heat & Power Company, and introduced as an expert witness in electric rate schedules; William Beardsley, of Pekin, Illinois, in charge of operation and rates of the Central Illinois Light Company at Pekin; Charles W. Spooner, Chicago, Illinois, a member of the firm of Spooner & Merrill, appraisal engineers; E. J. Haugh, Chicago, Illinois, expert accountant, representing the firm of Haskins & Sells, certified public accountants; Robert S. Drew, Evanston, Illinois, representative of the Business Research Corporation; William E. Vogelback, of Evanston, Illinois, public utility engineer, giving especial attention to rehabilitation of electric properties involved; B. H. Lybrook, general superintendent of the power system operating department of the Wabash Valley Electric Company; E. J. Kowalke, collector of miscellaneous statistics on the operation of the Wabash Valley Electric Company for the use of its present and other officers, and L. B. Andrus, president of the Wabash Valley Electric Company and president of several similar companies affiliated with it.

This hearing continued at Martinsville, Indiana, during January 9, 10, 11 and 12, 1928, and further hearing was had in the Rooms of the Commission, at Indianapolis, Indiana, [fol. 38] January 13, 1928. By agreement of the parties, time was fixed for filing briefs, and briefs were filed. Reply

briefs were filed by the parties also, thus completing the record in this cause.

During the hearing the following exhibits were introduced by petitioners:

Exhibit No. 1-A.—Appraisal by the Public Service Commission's engineering department of electric property in Martinsville and vicinity used in normal operation, on the basis of cost to reproduce new.

Exhibit No. 1-B.—Appraisal by the Public Service Commission's engineering department of electric property in Martinsville not used in normal operation, on the basis of cost to reproduce new.

Exhibit No. 1-C.—Appraisal by the Public Service Commission's engineering department of electric property used in normal operation, on the basis of estimated original cost.

Exhibit No. 1-D.—Appraisal by the Public Service Commission's engineering department of electric property in Martinsville not used in normal operation, on the basis of estimated original cost.

Exhibit No. 2.—Public Service Commission's report of audit of books of the Wabash Valley Electric Company and the Martinsville branch of said company.

Exhibit No. 3.—Petitioners' calculation as to fair value of property based upon engineers' appraisal of estimated cost to reproduce, plus estimated going value and estimated working capital.

Exhibit No. 4.—Petitioners' statement of income account based on property used and not used in normal operation.

Exhibit No. 5.—Same based on property used in normal operation.

[fol. 39] Exhibit No. 6.—Petitioners' exhibit of operating expenses and adjustments for period June 1, 1923 to December 31, 1926.

Exhibit No. 7.—Amount of depreciable electric property calculated by petitioners as used in normal operation and as not used in normal operation.

Exhibit No. 8.—Petitioners' comparison of effect of the active room basis schedule, comparing a consumer with five active rooms and the cost of a like amount of current for a commercial consumer.

Respondents introduced the following exhibits during the hearing:

Exhibit A.—Operating statements for the year ended July 31, 1927.

Exhibit B.—Comparison of local operating expenses and taxes (exclusive of power costs) for years ended December 31, 1926 and July 31, 1927.

Exhibit C.—Additions, improvements and betterments, actual and estimated.

Exhibit D (1 to 13, inclusive).—Spooner & Merrill's appraisal as of September 1, 1927, allocation to use utility property—(consisting of five sheets).

Exhibit E.—Spooner & Merrill's appraisal of electric property at Martinsville.

Exhibit F-1.—Summary of retirements and maintenance charges, ratio thereof to plant, property and franchises by periods from May 31, 1923, to October 31, 1927.

Exhibit F-2.—Haskins & Sells' report on retirements of [fol. 40] plant property from June 1, 1923 to October 31, 1927.

Exhibit G.—Summary of gross income before depreciation and percentage ratio thereof to plant, property and franchises and working capital by periods from May 31, 1923, to October 31, 1927.

Exhibit H.—Report by Business Research Corporation on expense and fixed charges applicable to residence lighting service as a minimum monthly charge in Martinsville.

Exhibit I.—Report by William E. Vogelback, engineer, on rehabilitation study January 3, 1928.

Exhibit J.—Condensed plant sheets for Wabash Valley Electric Company as of August 31, 1927, consisting of two sheets.

Exhibit K.—Comparative operating data by months for the first eleven months of 1927, in duplicate.

Exhibit L.—Results of application preliminary optional rates on the active room basis schedule on trial in Martinsville.

[fol. 41] Rates for Gas Eliminated

Stipulation was agreed to by all parties that the consideration of rates for gas should be eliminated from this cause, for the reason that the ultility had filed a reduction in the rates for gas. Said rate schedule and said stipulation were accepted and approved by the Commission.

Discussion of Delay

During the hearing the respondent was asked to agree upon a date certain as of which date fair value should be found. It refused to do so. That matter was left with the Commission.

The evidence of value fell into form as of about November 30, 1927. The Commission believes that value should be found as of that date, although public hearing was conducted principally in January, 1928.

Experts were brought from several states to testify upon active room form of schedule. Their testimony was so varied as to details of form in such schedules in their respective utilities and was so unanimous as to the benefits of such schedule that the Commission felt inclined to obtain experience in the Martinsville field served in order to throw the light of experience upon the expert testimony in the record. Accordingly the experience of the company for the year ending September 30, 1928, was obtained. Such study will be considered only as it may tend to clarify evidence in the record and not as evidence in this cause.

Not only residence lighting but commercial, sanitarium and power service were affected by new preliminary, optional schedules. The study referred to above was extended to these classes of service for the purpose stated above.

The utility was provided with copy of the study thus made and was requested to submit suggestions upon study of the same. The request was rejected by President Andrus, by letter.

The hearing Commissioner believes that these efforts have been in the interest of fairness, although they involved delay that has elicited some caustic criticism. Evidence in the form of prognostication should be tested by experience. Such test cannot be unfair to anyone. The active room schedule is new in Indiana. It did not appeal with favor to the members of this Commission. The utility sought its own experience under it. The petitioners, for the most part, agreed to a period of experimentation. The Commission wished such period to be of some value to all parties; hence the effort to secure the experience of one complete year and comparison of the same with the block rate which had been in effect for several years.

Local Communities and the Utility Act

Respondent insists that all of its property (the entire Wabash Valley system) be valued for the purposes of this cause, meaning thereby that valuation should not be confined to physical property used and useful in serving Martinsville and located within the territory served. Such [fol. 42] theory would involve finding fair value of all the Wabash Valley Electric property and allocating to Martinsville said community's share of total expense and return, and its share of the total property value.

This utility operates under an indeterminate permit, issued by the State of Indiana as provided by the Shively-Spencer Public Utility Act. The Public Service Commission of Indiana receives all of its authority from said act.

Section 9 of said act provides for such valuation, specifies certain elements that may be considered in determining fair value and says further: "In making such valuation the Commission may avail itself of any information in possession of the State Board of Tax Commissioners or of any local authorities."

Section 11 provides that the Commission shall serve a statement of value found "upon the public utility interested, and shall file a like statement with the clerk of every municipality in which any part of the plant or equipment of such public utility is located."

Section 14 provides that every public utility shall secure "the consent of the Commission and the proper local authorities" before availing itself of the benefits permitted by said section.

Section 57 requires the Commission to investigate rates, practices and alleged discrimination upon petition or complaint of "any mercantile, agricultural or manufacturing society or by any body politic or municipal organization or by ten persons, firms, corporations or associations * * * with or without notice", etc. Any (one) municipal organization is a proper party to petition.

Section 97 forbids the Commission to issue a permit authorizing "any public utility in any municipality where there is in operation a public utility engaged in similar service under a license, franchise or permit" until after public hearing, etc.

Section 110 saves to municipalities their authority over the use of their streets, their authority over the kind and quality of utility service and their authority in many other respects, indicating that each municipality may preserve its identity as a unit of utility operation.

All sections of the Shively-Spencer act tend to preserve for the local communities and for the local patrons (ten persons) the right to complain and the right to be heard, without incurring the burden of resisting the unreasonable and the unbearable expense of a rate case involving all other communities served by any utility which owns transmission lines for service of many communities.

Respondent's contention is so impracticable as to be prohibitive. One class of patrons in a local community could [fol. 43] have, and often have, a just complaint which they would better suffer than to undertake to secure relief, if respondent's theory should prevail.

The Commission believes the only practicable and equitable procedure to be that the general operation of respondent should be considered as such and should be considered separately from the operation of units serving local municipalities.

The right of ten persons and the right of any municipality to petition for reduction of rates or for adequate service would be abridged by the theory of respondent. The Indiana statute is specific in providing that ten persons or any municipality may petition and, the implication follows, that such right should not be abridged.

If "all the property used and useful," directly or indirectly, be valued in consideration of this rate case, it would not require a severe stretch of imagination to include in said evaluation the electric properties from which the respondent purchased current, though same are properties of other utility corporations.

In the case of the Hardin-Wyandot Lighting Company vs. Public Utilities Commission of Ohio, the Supreme Court of Ohio, in May, 1928, upheld an order of the Ohio Utilities Commission in which the Commission refused to include in the rate base "parts of the general plant situated in Upper Sandusky, Dunkirk, Kirby and other municipalities." The Ohio case affected the City of Kenton, Ohio. The parts of the general plant excluded from the rate base, supra, were found by the court to be "used during a peak period to help

the Kenton power house to carry its load in territory outside of Kenton." The court said: "It is self-evident in a rate controvery involving public utility rates charged in a particular municipality that only property used and useful in furnishing service in such municipality should be valued for the purpose of establishing such rate."

The court stated further: "An allocation was made by the Commission upon the basis of consumption of electric current in Kenton as compared with the electric current consumption in other territory served by the utility." (162 N. E. 262-8.)

The Ohio case is readily adaptable to the instant case. The allocation of the current required to serve Martinsville is the most convenient, the most accurate and the most equitable method to follow. Such allocation in the instant [fol. 44] case will place upon equal terms all communities served by this respondent. It will preserve the autonomy of each community served and will preserve for the citizens of each community the rights believed by this Commission to have been intended by the Shively-Spencer Public Utility Act to be sacred to them, viz: the right to petition the State authorities for relief from excessive rates, from inadequate service and from discriminatory practices. It will protect the several communities from the burden of prohibitive costs of appraisals and audits in rate cases. Such excessive costs can not be avoided if the properties serving all communities served by the Wabash Valley Electric Company must be considered as a whole and allocated to determine a fair rate for service rendered by the distribution system and local management in a single community. The establishment of a fair rate must not exclude common sense from the methods used in determining it.

An examination of the respondent's appraisals will disclose the fact that certain parts of their property have been omitted entirely, and other portions have been so intermingled that it is almost impossible to determine what is, or is not, included.

Assuming, however, for the purpose of the illustration, that they have filed complete appraisals, would it not be well to consider briefly where this theory would lead to, if followed consistently? Assume that a petition was filed for a reduction of rates by the City of Martinsville. Would

not this petition inevitably lead to an adjustment of rates, (if any change were made) in every one of the fifty or sixty cities, towns and villages served by the Wabash Valley system? In some cases the rate might be fair, yet all would have to be changed to conform to the needs of the entire system. The City of Martinsville would have no interest in the City of Spencer, yet by filing a petition Martinsville, according to respondent, could set in motion machinery which would directly affect every patron of the utility served in the City of Spencer.

Another pertinent question which suggests itself, if respondent's theory is accepted, is: Could there ever be any classification of cities or towns as regards the rates paid for service? Theoretically, every city and village is a component part of the whole structure, and, as such, would undoubtedly be entitled to the same treatment. Notwithstanding the fact that it might cost much more to serve some towns than others, all, in fairness, should join in carrying the burdens imposed by the system ownership. This being true, of course the hamlet would take the same rate as the city, and irrespective of cost to serve, would share equally in the blessings or burdens, as the case might be.

Again, as a practical question, under this theory, could there ever be a separate determination of a rate in any city [fol. 45] without a complete adjustment for the entire system? Obviously not, if all towns are component parts of the same system which must be valued together. Applying this reasoning to the present case, could there be a determination of a separate rate for Martinsville with the record as it now stands?

In addition to evidence of value, other things must be shown in determining a proper rate base, among which are operating costs, depreciation, etc.

Is there any place in the record—any evidence as to operating costs in any municipality other than Martinsville? If there is no evidence of this kind, would there not be a vital lack of evidence both on the part of petitioners and respondent? In this connection should a single municipality ever be put to the burden of determining for a rate base these other elements entering into the establishment of the rate base? If this evidence is missing, would the Commission not be forced to do one of two things, namely, ask for additional evidence or find against both

petitioners and the respondent on the ground of a lack of sufficient evidence. Such a course would be a travesty, to say the least. There should be some solution of the problem.

The answer is apparently plain. When the Shively-Spencer law was enacted, certain conditions existed and the law was undoubtedly formulated to meet those conditions. Franchises and permits to operate, each one separate and distinct, had been granted to the utilities then operating. No municipal corporation would have presumed to grant any rights outside its boundary, and any such attempt, of course, would have been useless. These franchises, when the law came into being, were exchanged for indeterminate permits, which did not enlarge the scope of the several operations, but simply changed the status of them in a legal sense.

If the Shively-Spencer act were repealed after the five-year time limit had passed, these franchises would revert to their former status, subject to each and all of the limitations first imposed (Sec. 100). Remember also that the municipality may always purchase the "major part * * * of the property actually used and useful for the convenience of the public," etc. (Sec. 100.)

Would respondent claim that, in order to make this purchase, the municipality would have to do all the things it insists must be done in the rate hearing in the case under consideration herein? If not, why should the rule be different in the one than the other?

It will be noticed that the purchase can only be made after a hearing and on value to be "determined by the Commission."

[fol. 46] By section 29 of the act it was very evidently intended that the separate entity of each city, town and village should be preserved. Clearly the granting of the franchise was a contract between the municipality and the utility and, while the operation of this contract may be suspended, it cannot under our constitution be abrogated, nor could any ex post facto law be passed which would change its effect.

If there were any doubt about it being the intent of the law to maintain the separate entity of every municipal cor-

poration in the state, section 41 of the act furnishes additional proof of the fallacy of this reasoning.

Very evidently the legislature, when it passed the Shively-Spencer act, did not intend to build up state-wide utilities so large as to make it impossible to have any check on them, but they intended the formulation of a law which would be fair to citizens, municipalities and utilities alike.

Cost of Energy at Gateways is Equitable Basis

Should the entire Wabash Valley Electric Company be appraised, the income calculated and fair return on all the property (both general and local) calculated, for the purpose of allocating to Martinsville its proportion of the physical property, its share in the income and its obligation in rendering its share of fair return? Or, should the total energy generated, purchased and sold be allocated upon the basis of the amount of energy delivered to Martinsville, said delivery of energy to include operating expense, taxes, fair return, etc. upon the generating system and property used and useful in delivery? The former method would bring the consumers at Martinsville face to face with an insurmountable proposition in a rate case. The patrons in any community are authorized by the Indiana law to petition for regulation of rates and service. The patrons of any single community in the Wabash Valley system would be prohibited (by the great expense) from undertaking a valuation of all the property of the system. If this valuation were undertaken by this Commission, the expense would be an excessive burden upon any single community and would, if allocated among all the communities served, be an expense to the other communities against which (in equity) they would have a right to rebel. In this connection could this Commission, without notice to all patrons of the utility, under the constitution of both state and nation, "take property without due process of law" by increasing rates or apportioning costs in a hearing to which they were not parties.

The quantity of energy delivered to the gateways of the several communities is ascertainable. The cost of same, including taxes, return, etc. is ascertainable. The cost to serve each community is, therefore, ascertainable. The [fol. 47] Commission believes that an impracticable method

should not be employed when a convenient and fair method is available. Therefore, the Commission finds that the cost of current delivered at the gateways should be the method used in calculating the cost of service to Martinsville in the instant case and the terms of the order in this cause will be based upon such finding.

Against this theory it is argued that there must not be discrimination by the utility against any community. Elsewhere in this discussion it is set forth that the Indiana utility act is based upon the rights of the individual patrons to demand equitable rates and adequate service in their several communities. The constitution of Indiana and the Constitution of the United States are bottomed upon the preservation of the rights of the individual.

The utility is familiar with its own rates, practices and service. It can not lawfully escape the duty to guard against discrimination of any kind. The method announced above does not even discourage the utility from eliminating or eradicating discrimination in every form (P. U. R. 1927 C 473).

Discussion of Evidences of Value

Present value of the property is the value upon which the rates and charges must yield fair return. Fair value and present value are interchangeable terms when used in a rate case. The value found must be fair and it must be the value at the time of inquiry. It must reflect proper deductions from the history of the utility and service rendered by it; also it must reflect a glance into the future both as to prospect of increase or decrease in the volume of patronage, as well as the profits or losses that may result therefrom. Rates are not made for today only, but for a reasonable period of years. Fair value and fair rates must be compatible with each other.

In determining fair value, no single evidence of value may control. Cost to reproduce new is important evidence of value, but is not the sole evidence of value. Historic cost is important evidence of value, but is not the sole evidence of value. Representations made by the utility to other public bodies that deal with value deserve consideration as throwing light upon evidences of value urged upon this Commission.

If the Commission be convinced that unit costs used in appraisals are "loaded", this fact should be considered in the light of the record. If the Commission be convinced that representation made to the Board of State Tax Commissioners to press down unduly the tax base, that should be considered. If the Commission be convinced that the book cost is unduly low or unduly high, that fact should be considered. All evidences of value must be considered, each according to its degree of importance in determining [fol. 48] fair value.

If the property is depreciated, that fact must be considered. If the property has appreciated, that fact must be considered. If the service to patrons is below adequacy, the rate of return must be fair to patrons; if the service is adequate, equal consideration must be given to that fact.

In other words, in a rate case, Fair Value must mean that the property will yield a fair return to its operators and will not require the patrons to pay more than a fair price for the service rendered them. The fairness must extend to those rendering service and to those receiving service.

On the basis of January, 1927, prices, inventory as of April 1, 1927, the engineering department of this Commission estimated the cost to reproduce new the electric property used in local service at Martinsville and vicinity at $93,476.00.

Same depreciated at 72,157.00.

Same, estimated original cost 89,169.00.

[fol. 49] (Above estimates to reproduce new include allowance of 15 percent for construction overhead expense.)

The respondent's engineers made corresponding estimate of cost to reproduce new, as of September 1, 1927, the property used in Martinsville at $102,285.00.

Same depreciated 88,721.00.

(See respondent's Exhibit D.)

Respondent's Exhibit C showed additions and betterments to Martinsville local plant completed from April 1, 1927, to November 30, 1927, to be	$4,116.36
During the same period, paid on open work in progress	2,583.39
	$6,699.75

The purpose of this part of this exhibit was to bring down to November 30, 1927, the appraisal made by the Commission's engineers as of April 1, 1927.

The same exhibit, by the same method, showed that there should be added to respondent's appraisal of the same property $4,116.09 to bring same down from September 1, 1927, to November 30, 1927.

These additions would increase the Commission's engineers' appraisals as follows:

Estimated cost to reproduce new	$100,175.75
Same depreciated	78,856.75
Estimated original cost	95,868.75
Respondent's estimated cost to reproduce new	106,401.09
Same depreciated	92,837.09

In Cause No. 6413 before this Commission, approved April 27, 1923, a value of $120,000.00 was fixed upon this property. Said value included:

Standby plant	$60,000.00
Working capital	6,000.00
Going value	8,000.00
Total	$74,000.00

Including said standby plant, the value of the depreciable property was declared, in the same order, to be $101,000.00; value of the "constantly used property" was found in that order to be $46,000.00.

What is known as standby plant, in said order, is now known principally as power plant. In 1923 it was supposed to be necessary and to be used to generate current at time when the transmission line then supplying current would fail to serve. In the instant case such portions of the standby plant of 1923 as is not used in local service is declared to be used as a part of respondent's general power system. This power plant was improved speedily and [fol. 50] wonderfully after the petition was filed in the instant case. Its operation as a part of the power system, up to such time, was of questionable value.

In the 1923 order (No. 6413 supra) the book value (exclusive of $55,060.22 carried on the books as going value)

was found to be $131,098.16. Concerning this the Commission's order said: "There is no evidence before the Commission that the actual amount of investment is truly reflected in the books." This remark seemed to be intended to carry especial significance. Evidently the company then owning the property was content because it accepted a total value for its physical property of approximately $25,000.00 less than shown by the utility's books.

The history of this property suggests close scrutiny of values.

Transcript, page 524: Witness Charles W. Spooner, utility's appraisal engineer. Question by counsel for petitioner concerning generating plant in Martinsville as part of respondent's total power system:

Q. Don't you think that from what knowledge you have that this local generating plant should be amortized out of the capital account gradually?

A. I think they will be faced with that condition before very long.

Further answer by the same witness disclosed that said generating plant was included in his appraisal (Respondent's Exhibit D-1) at $84,000.00, which corresponds with the figure of $46,829.00 in appraisal by the Commission engineers.

In view of and in connection with this difference in depreciated appraisal of the Martinsville power plant, the witness testified that he gave the power plant at Clinton 87 percent condition; the power plant at Sullivan 80.6 per cent condition; at Spencer, 76 per cent condition.

Witness stated that he gave the Martinsville power plant 83½ per cent condition, while the Commission's engineers gave it 45 per cent condition. Other testimony in the record indicated that the company had improved the condition per cent of this power plant after it was appraised by the Commission's engineers. However, the evidence did not warrant the conclusion that the gap between the two per cents condition had been closed by such improvements, or even nearly closed. Mr. Spooner's per cent condition of all this property, therefore, seems to deserve close scrutiny.

Witness Spooner, testifying as to the cost of poles, stated that in some instances the cost of poles was higher in his

appraisal, in some instances higher in the Commission engineers' appraisal; that in most instances the cost of poles in place was higher in his appraisal than in the Commission's engineers' appraisal, due to the fact that the witness added to the cost of material 4.56 per cent, to [fol. 51] the cost of labor 17.85 per cent, while the Commission engineers included such items as part of their 15 per cent overhead costs. The figures testified to above, by this witness, were in addition to witness' own general allowance for overhead costs.

The per cent added to material and labor costs by this witness in his appraisal, therefore, is 22.41 per cent in addition to his general per cent allowance for construction overheads, as compared with the Commission engineers' 15 per cent.

Mr. Spooner's testimony disclosed the following contrasts between his appraisal of poles in place in transmission lines in rural districts, similar poles in place in Martinsville and similar poles in place in Martinsville as estimated by Commission engineers:

Kind of pole	Spooner & Merrill		Commission engineers, town
	Transmission line	Town	
25 ft. 6 in	$9.96	$8.62	$7.22
30 ft. 6 in	13.68	11.93	9.14
30 ft. 7 in. (butt treated)	17.44	15.69	16.42
30 ft. 6 in. (western)	12.07	10.35	8.85

Generally speaking, pole prices and labor prices used by Spooner & Merrill were higher than the corresponding prices used by Commission engineers. Also, the overhead percentage added to both labor and materials was almost 50 per cent higher than the overhead percentage added by the Commission engineers. Also, the per cent condition of the property, generally, was higher than that found by the Commission engineers. The trend, throughout, was much higher in the appraisal by Spooner & Merrill than in the appraisal made by the Commission engineers. Reconciliation of these differences will compel the Commission to consider all obtainable evidences of value.

Both engineers had access to current prices of material, to current prices of labor, to soil conditions in the territory and to the effect of contract construction upon total costs.

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Both engineers had access to current prices of material, to current prices of labor, to soil conditions in the territory and to the effect of contract construction upon total costs.

Mortgage Contract and New Property

The respondent has given a mortgage upon its entire property. This mortgage requires the company to set up on the books from the earnings a reserve amounting to 12½ per cent of the gross revenues obtained from all sources except income from securities. Mr. Schiesz, treasurer of the company and witness, testified as follows (Trans. pp. 643-644):

"We are also entitled to make deductions for all expenses incurred in connection with retirement or replacement of property, and such losses as might be incurred in that connection. The sum of the current maintenance and the expenses and losses in connection with replacement and retirement of property is then deducted from the figure com- [fol. 52] puted on the basis of 12½ per cent of the gross revenues, and the balance remaining, if any, must be deposited with the Trustee in the form of cash and the cash is actually deposited, if the report shows that there is a deficiency in expenditures. Following that step of depositing the cash, the mortgage, or the terms of Article V, or the provisions of Article V, state that the company is entitled to withdraw that money from the fund by one method of substituting fundable construction which has not been made the basis for certification of bonds."

In 1926, the total requirement under the 12½ per cent mortgage clause was $132,707.00; deposited with the trustee for that year, $24,035.01; 1925, total requirement, $135,-643.93, deposited with trustee, $11,647.88. An exhibit prepared by this witness showed deposits in other years to be $56,891.63 for 1923; $7,827.58 for 1924; and that expenditures for maintenance and depreciation for 1927 exceeded the revenues from the 12½ per cent by $79,669.29.

The same exhibit showed the amount expended from this fund, before deposit with the mortgage, to be $34,942.18 for 1923; $109,179.82 for 1924; $123,996.05 for 1925; $108,-672.64 for 1926; and $236,675.87 for 1927, leaving a balance for the five years to be invested in new construction as $20,732.81.

It must be noted the expenditures from this fund in 1927 were more than $112,000.00 in excess of the expenditures for any other year; that the petition for rate reduction in

this cause was filed during the early part of the same year; and that the testimony of this witness warrants the statement that the above balances are invested in new construction.

It follows that the patrons have paid for this new construction and that the property so constructed is appraised for valuation as a rate base upon which the company expects to earn a return. Fair value of the property must take into consideration these facts.

The Commission believes the patrons should not be required to pay for utility property and pay a return upon the same property, without opportunity to participate in the return and in the management.

Depreciation

Article V of the mortgage provides for the fund designated in the instrument "Maintenance, Depreciation and Improvement Fund." Article V recites:

"All expenditures made by the company during any of such years properly and ordinarily chargeable to maintenance and depreciation of its property shall be charged on the books of the company to maintenance and depreciation, and the aggregate amount so expended for maintenance and depreciation by the company in such year shall be treated as a credit to the fund for such year."

It is apparent from the above that maintenance and de- [fol. 53] preciation charges are covered in the 12½ per cent provision of the mortgage. According to the terms of the mortgage these charges are to be made upon the company's books. Utility law and sound practice require such charges to be made as a part of the operating expense. Yet the company asks an allowance of 4 per cent per annum on the depreciable property for depreciation purposes in addition to the 12½ per cent requirement. The request seems to be for a double allowance for depreciation. Since the patrons must pay this, it is the Commission's duty to determine whether proper depreciation charges are covered in the 12½ per cent fund required by the mortgage.

Working Capital Allowance

The company seeks an allowance for working capital, the amount so allowed to be a part of the rate base upon which

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Working Capital Allowance

The company seeks an allowance for working capital, the amount so allowed to be a part of the rate base upon which

the company should earn a return. Such allowance will not be made in this cause, for the reasons given below.

In cause No. 7018, approved by this Commission June 26, 1923, in which the Wabash Valley Electric Company was petitioner and in which it was granted "authority to issue bonds and stock to refund its obligations and to acquire the properties of other public utilities", the Commission granted such authority in paragraphs designated in said order as "A", "B", "C", "D" and "E" and other paragraphs. Paragraph E of said order reads:

"$25,000 par value of its 7 per cent preferred stock and $110,000 par value of its common stock to be sold for cash at not less than 90 per cent of par to provide working capital for the property of petitioner and the properties to be acquired by it."

The above paragraph appeared in the order by which the Wabash Valley Electric Company was authorized to acquire the property of the Martinsville Gas and Electric Company, which is the property involved in the instant case.

Another paragraph of the order in cause No. 7018 reads:

"It is further ordered that on or before August 1, 1923, petitioner shall make report in writing to the Commission, showing therein the securities authorized herein that had been issued, sold or exchanged, and the property and cash received therefor, and also showing therein the consummation of the purchase of the properties which petitioner herein asks authority to purchase."

On or about July 28, 1923, the Wabash Valley Electric Company made report to the Commission as required by the last preceding paragraph. This report was executed on the 24th day of July, 1923, and was sworn to by H. R. Ellis and Marshall V. Robb, the former being a vice president and the latter secretary of the Wabash Valley Electric Company at that time. In this report of stocks and securities sold it is stated that "the proceeds thereof were used for the purposes specified in said Certificate of Authority, and for no other purpose."

[fol. 54] The last paragraph in the body of said report reads as follows:

"$25,000.00 of preferred stock and $110,000.00 of common stock sold at par, the proceeds to be used as working capital."

It appears, therefore, by virtue of authority granted by this Commission, working capital for the entire Wabash Valley electric system has been provided by the issue of preferred stock and common stock after public hearing; that the Martinsville Electric Company is a part of the system for which said preferred stock and common stock were sold to provide working capital.

In the appraisal made by the Public Service Commission's engineers is included the sum of $6,566.00 for materials and supplies which is a part of the working capital of the utility and which is included for the Martinsville property only. It would be obviously unfair for the Commission to grant in the instant case further allowance for working capital, because it would be a duplication of working capital now included in the appraisal of the Martinsville property.

Unit Cost of Energy Delivered

With respect to the income account, there is a sharp difference of opinion between petitioner and the respondents as to the power cost properly assessable against the consumers at Martinsville. The respondents assert a power cost of $59,037.10, and the petitioners that that power cost should be entered in the income account at $30,469.50. This difference is a result of different methods of arriving at the unit power cost.

Under the respondents' methods, the sum of approximately $59,000.00 is arrived at by multiplying the number of kw. h. used in Martinsville for the twelve months' period under consideration by a unit cost of $.027 plus per kw. h. The total power cost, according to the petitioners, is arrived at by multiplying that same number of kw. h. by a unit cost of $.0139 plus. The difference between these calculations of power costs is so great that, obviously, the method of arriving at these unit costs is most important.

During the year ending July 31, 1927, the Wabash Valley Electric Company purchased and generated a total of 57,549,193 kw. h. In that same period it sold a total of 51,457,770 kw. h. The difference between those two figures

was accounted for by a line and transmission loss. In others words, during the year there was actually sold by the Wabash Valley Electric Company a little over 51,000,000 kw. h. at a cost, including power cost, operating expenses and taxes, of $719,175.91, or at a unit cost of $.0139 plus per kw. h. sold.

All of this electrical energy was sold out of the interconnected transmission system or pool of power known as the Wabash Valley Electric Company. Of the total kw. h. sold 21,335,114 kw. h., or more than two-fifths of the total output, was sold to the Attica Electric Company and the [fol. 55] Northern Indiana Power Company, and 31,122,656 kw. h. were sold to the so-called "gateways" of the Wabash Valley Electric Company, including Martinsville. The Wabash Valley, therefore, sold two-fifths of its total kw. h. in that year to allied companies, and three-fifths to the so-called "gateways" of the company, including Martinsville, at an average sale price per kw. h. of $.0139 plus. It would have been expected that, inasmuch as all the electrical energy comes from the same pool of power, the price to Martinsville for that power would be the same as the price to the Attica Electric Company, that is $.0139 plus per kw. h. This is the method which the petitioners used in arriving at that power cost.

[fol. 56] Page seven of respondents' Exhibit A, introduced by Mr. Shies, treasurer of the respondent company, shows that the Wabash Valley Electric Company sold electrical energy to the two allied Insull companies at a cost of $.0125 per k. w. h., and sold electrical energy out of the same pool of power to Martinsville for $.027 plus per k. w. h.

Under the respondents' method of calculation, electrical energy from a common pool was sold to allied utilities at less than the actual cost to the Wabash Valley Electric Company (selling company), and was sold to Martinsville and other towns in the system at substantially double the cost.

In calculating the sale price of electrical energy the Wabash Valley Electric Company charged against the so-called "gateways", including Martinsville, all of the depreciation and return that the Wabash Valley Electric Company was entitled to earn. Respondent did not charge any of that depreciation and return against the two allied utilities, and also did not charge anything to meet operating cost and power cost. This was aside from the depreciation

and return. In other words, under the respondents' method of allocating its cost, the various towns in the system, including Martinsville, which purchased only three-fifths of the total output of the Wabash Valley Electric Company, paid not only for the depreciation and return charged on the three-fifths of the property devoted to its use, but did pay the depreciation and return charged on the entire five-fifths of the property, thus allowing the two allied utilities to escape without paying any depreciation or return whatsoever. Not only were the towns of the system, such as Martinsville, penalized by paying the depreciation and return on the entire property, but were also penalized by paying some of the actual out-of-pocket power cost under the respondents' method of calculation.

To recapitulate, under the theory of respondent's exhibit, the total over-all cost of all the electrical energy which the Wabash Valley Electric Company sold during the year in question, including depreciation and return, was $.0139 per k. w. h. This electrical energy, which cost $.0139 per k. w. h., was sold to allied utility interests at $.0125, or under actual cost. The same electrical energy, coming out of the same interconnected transmission system and coming out of the same pool of power, was sold to the "gateways", including Martinsville, at $.027. Obviously, this method of calculation and allocation is unfair to Martinsville, and the power cost thus arrived at by respondents is too high.

The Commission believes, therefore, that the unit cost of power property assessable against the City of Martinsville should be $.0139 plus, to which should be added fair return on the property used and useful to generate such current and deliver it to Martinsville.

[fol. 57]

Conclusions

Having considered all matters presented in this cause and being thereby sufficiently advised, the Commission finds:

(1) The fair value of the property used and useful for serving the petitioners herein is $87,000.00, including going concern value and working capital, as of November 30, 1927.

(2) The fair rate of charge, by the general system of respondent to the City of Martinsville, for electrical energy furnished at the "gateway" of said city for service therein,

is $.0172 per k. w. h., which charge includes production cost, depreciation and return.

(3) The amount of working capital to which the electric property in Martinsville is entitled on account of its service to petitioners is exceeded by the amount of materials and supplies included in the appraisal of the Martinsville property. Therefore, no additional allowance should be made for working capital in this cause.

(4) Demand by respondent for allowance for depreciation is met, as shown by respondent's statement filed, by provision in Article V of mortgage on the utility property, in which 12½ per cent of certain gross revenues of the company is set aside to be used for maintenance, depreciation and improvement. For this reason no additional allowance for depreciation should be made.

(5) Energy sold by respondent to other public utilities should be sold to them at no less price than is charged for energy furnished by said respondent to Martinsville at the "gateway".

(6) The respondent should be permitted to put in effect a preliminary, optional rate for service, based upon the active room plan of rate schedule, and should be required to keep in effect such optional rate so long as such form of rate shall not be applied to the disadvantage of the patron, although the Commission may not now be in complete harmony with such form of preliminary, optical rate.

(7) The distribution system at Martinsville should be considered separately from the power system and the general system of distribution of respondent in this cause, both as a matter of convenience and accuracy of calculation, and to preserve to the patrons of the several communities the rights intended to be preserved for them by the Shively-Spencer Public Utility Act, amendements thereto and modifications thereof.

(8) The Commission finds that the schedule of rates and charges set out below will be adequate to meet the requirements of the company for rendering service to Martinsville [fol. 58] and to yield a 7% return on the fair value of the company's property.

(9) The price per k. w. h. charged to Martinsville for energy furnished at the "gateway" should not be more than Martinsville's fair and equal proportion per k. w. h. for all energy sold by the company's general system to all customers, including allied public utilities to which energy is sold.

(10) The Commission finds that the revenues of the respondent at Martinsville should be reduced not less than $25,000.00 per year, said reduction to be based upon the total revenues shown by respondent for the year ending July 31, 1927.

(11) The Commission finds that the respondent should set up in a depreciation fund, as required by law (Acts 1925, chapter 64, page 210) a sum not to exceed 4 per cent per annum of the depreciable property used and useful in Martinsville; that said sum should be taken from the proceeds accruing from the 12½ per cent clause in the mortgage; that said sum should be used for depreciation purposes only, consistent with the mortgage contract, but not inconsistent with the law; that the proceeds thus acquired used in temporary construction should not remain so invested for a period longer than twelve months; that the permanent investment of such funds in construction of property should be forbidden.

It is therefore ordered by the public service commission of Indiana that, for the purposes of this cause, the charge for energy furnished by the general system of the respondent shall be the equitable share of the Martinsville utility property and service of the cost, including depreciation and return of all energy sold by the general system of respondent, as of the year ended July 31, 1927; that said charge shall be $.0172 per k. w. h.

It is further ordered that respondent be and is hereby required to put in effect and keep in effect until further order of this Commission two forms of rate schedule modeled after the two forms of rate schedules in effect at time of hearing, and that such rate schedules shall be as set out below in this order.

Wabash Valley Electric Company, Martinsville Electric

Residence Rate Schedule

Monthly consumption	Gross	Net	
First 25 K. W. H.	$.065	$.06	per K. W. H.
Next 25 "	.055	.05	" "
Next 50 "	.045	.04	" "
Next 200 "	.0425	.0375	" "
Next 200 "	.04	.0350	" "
Next 500 "	.0375	.0325	" "
All over 1,000 K. W. H.	.035	.03	" "
Minimum	1.10	1.00 per month	

[fol. 59] Optional Residence Rate Schedule

(Active Room Basis)

Monthly consumption	Gross	Net	
First 4 K. W. H. per active room.	$.08	$.07	per K. W. H.
Excess	.04	.04	" "
Minimum	1.10	1.00 per month.	

Commerical Rate Schedule

Monthly consumption			
Service Charge	.75	.75 per month.	
First 175 K. W. H.	.06	.05	per K. W. H.
All over 175 K. W. H.	.04	.04	" "

The net rate to apply if bill is paid within the discount period, otherwise the gross rate shall apply.

Electric Cooking and Heating Rate

Available for service through separate meter for cooking and heating and also for domestic refrigeration when the consumer is using this service for cooking and heating and also uses the lighting service under regular lighting rates.

Rate:

	Per K. W. H.
First 400 K. W. H.	$ .04
All over 400 K. W. H	.03

Minimum Charge:

The minimum charge shall be $24.00 per year for the first 8 K. W. of connected load, and $3.00 per year per K. W. for each additional K. W. or fraction thereof.

Term of Contract:

One year.

The above rates are net and subject to an additional collection charge of 10% if not paid within the discount period.

Schedule of Rates for Sanitariums

Available for mixed load of lighting, heating and power, to sanitariums having a billing demand of not less than 10 K. W. or not more than 200 K. W.

Demand Charges:

	Per month
First 7½ K. W	$1.25 per K. W.
Next 30 K. W	1.10 " "
All over 37½ K. W	1.00 " "

Plus an energy charge as follows:

[fol. 60]

First 3,000 K. W. H. per month	$ 025 per K. W. H.
Next 7,000 " " "	.0225 " "
Next 10,000 " " "	.0220 " "
Next 30,000 " " "	.021 " "
All over 50,000 " " "	.02 " "

Determination of Billing Demand:

Billing demand shall be the sum of the demands of the power, heating and lighting loads. Demands shall be determined by the measurement or, at the option of the company, be estimated, using the following percentages of connected load:

1 to 7½	K. W.	demand	shall	be	equivalent	to	60%	of	connected	K. W.
7½ to 37½	"	"	"	"	"	"	55%	"	"	"
Over 37½	"	"	"	"	"	"	50%	"	"	"

Minimum Charge:

Consumers will be required to sign formal contract specifying the connected load to be served and 40% of the equivalent of this load expressed in K. W. shall constitute a minimum monthly demand charge but in no event shall it be less than 10 K. W., irrespective of the amount of energy used.

All of the above rates are net and are subject to an additional collection charge of 10% if not paid within the discount period.

Small Power Rate Schedule

Available for consumers having connected load less than 100 H. P.

Demand Charge:

$1.25 per K. W. per month of billing demand, plus an energy charge of:

Energy Charge:

First 5,000 K. W. H. per month	$ .0225	per K. W. H.	
Next 5,000 " " "	.021	"	"
Next 40,000 " " "	.02	"	"
All over 50,000 K. W. H. per month	.018	"	"

Determination of Billing Demand:

The billing demand shall be determined by measurement or at the option of the company by estimate, using the following percentages of connected load:

1 to 7½ K. W. demand shall be equivalent to	60%	of connected	K. W.
7½ to 37½ " " " " "	55%	" "	"
Over 37½ " " " " "	50%	" "	"

Minimum Charge:

The minimum charge shall be the demand charge but in no case less than $4.00 per month.

All of the above rates are net and are subject to an addi- [fol. 61] tional collection charge of 10% if not paid within the discount period.

Wholesale Power Rate Schedule

Available to coal mines, clay industries and other power users contracting for a definite amount of electrical capacity (not for the purpose of resale) not less than 100 K. V. A. nor more than 1,000 K. V. A. Contracts will be made in multiples of 50 K. V. A. and or in total amounts conforming to standard sizes of transformers. Current will be supplied at 3 phase, 60 cycle, 2,300 volts unless otherwise agreed upon. Incidental lighting not to exceed 20% of power shall be permitted upon this rate.

Demand Charge:

The maximum demand charge shall be determined as of the highest 15 minute integrated peak occurring during the month. The demand shall be charged for at the following rates:

$1.25 per month per K. W. of maximum demand.

Energy Charges:

In addition to the demand charge, consumer agrees to pay an energy charge based on the number of K. W. H. consumed each month at the following rates:

	Per K. W. H.
First 5,000 K. W. H.	$ .0225
Next 10,000 "	.02
Next 15,000 "	.0175
Next 20,000 "	.0160
Next 50,000 "	.0150
All over 100,000 K. W. H.	.0135

Minimum Charge:

The minimum demand charge shall be required to be named in each contract, but shall not be less than 40% of the amount of contracted capacity.

These bills are net and subject to a 10% additional collection charge if not paid within the discount period.

It is further ordered that the schedule of rates and charges set out above shall be put in effect by respondent upon all

billings for service rendered at Martinsville on and after February 1, 1929.

It is further ordered that the rate case expense charged to Martinsville shall be amortized over a period of ten years, shall be charged as an operating expense against the revenues from service at Martinsville, and shall not exceed $400.00 per year.

It is further ordered that respondent shall pay to the State of Indiana, through the secretary of this Commission, the sum of $1,000.00 as costs for appraisal of the electric [fols. 62-70] property of respondent at Martinsville and audit of respondent's books in connection therewith; also the sum of $5.11, cost of legal publication of notice of hearing, a total of $1005.11; that such payment shall be made within twenty days after date of approval of this order.

It is further ordered that the amended petition filed in this cause be and is hereby held to be sufficient; that respondent's motion, that said petition be dismissed, be and is hereby denied.

It is further ordered that jurisdiction in this cause be and is retained by the Public Service Commission of Indiana for a period of one year after rates prescribed herein shall be put in effect, for the purpose of determining from such experience whether rates prescribed herein are fair, equitable and without discrimination, upon the basis of section 29 of the Shively-Spencer Public Utility Act.

It is further ordered that any funds "expended temporarily" for "new construction, extensions or additions to its utility property" from the depreciation fund shall be "expended temporarily" for a period not exceeding twelve months, and the words "temporarily expended", as used in connection with said fund, are hereby construed to mean a period not exceeding twelve months.

It is further ordered that any balance from any revenues paid by patrons as rates and charges for service shall not be expended except temporarily for new construction against which bonds or other securities may be issued lawfully.

It is further ordered that the Wabash Valley Electric Company be and is hereby ordered and directed to set aside, annually, in a fund for depreciation purposes, a sum equal to 4 per cent of the depreciable property used and useful

at Martinsville, to acquire the money for said fund from the revenues obtained by the operation of the 12½ per cent clause in the mortgage heretofore referred to in this order, and to use said fund only as authorized by the law and the provisions of this order consistent therewith.

Harmon and McIntosh concur.
McCardle and Ellis not voting.

Approved January 26, 1929.
Attest:
Fred I. King, Secretary. (Seal Public Service Commission of Indiana.)

ad.

[fol. 71] IN UNITED STATES DISTRICT COURT

[Title omitted]

SEPARATE ANSWER OF THE DEFENDANTS, FRANK T. SINGLETON, JOHN W. MCCARDLE, HOWELL ELLIS, HARVEY HARMON, CALVIN F. MCINTOSH, AS MEMBERS OF THE PUBLIC SERVICE COMMISSION OF INDIANA, JAMES M. OGDEN, AS ATTORNEY GENERAL OF INDIANA, AND HARRY G. LESLIE, AS GOVERNOR OF INDIANA—Filed March 14, 1929

I

Said defendants, for answer to the plaintiff's bill of complaint herein, say that they admit that the defendants, Singleton, McCardle, Ellis, Harmon and McIntosh, were, on the 26th day of January, 1929, and at all times referred to in the plaintiff's bill of complaint, and now are, members of the Public Service Commission of Indiana; that said Public Service Commission of Indiana is a body created by the statutes of the State of Indiana, charged with the duty of the regulation and control under said statutes of all public utilities in the State of Indiana; that among other duties said Public Service Commission of Indiana, and the members thereof, are charged with the duty of approving and determining fair and reasonable tariffs, rates and charges for the services of public utilities in the State of Indiana. [fol. 72] That the defendant Harry G. Leslie is the Gov-

ernor of the State of Indiana and is also charged with certain duties with reference to the enforcement of the orders of the Public Service Commission of Indiana; that the defendant James M. Ogden is the Attorney General of the State of Indiana, and under the laws of said State is charged with the duty of commencing and conducting suits and proceedings to enforce the orders of the Public Service Commission of Indiana, and to regulate and enforce fines and penalties imposed by the statutes of the State of Indiana for violation of the orders of said Public Service Commission of Indiana. That each and all of said defendants are official residents of Marion County, Indiana, and the defendant James M. Ogden is actually and regularly, as well as officially, a resident of Marion County, Indiana.

II

Said defendants admit that the plaintiff is a corporation organized under the laws of the State of Indiana for the purpose, among other things, of manufacturing, buying, selling and distributing electricity for light, heat and power to cities and towns and to the public in general in the State of Indiana, as a public utility and was at all times referred to in the plaintiff's bill of complaint and is now engaged in said business under the supervision, and subject to the regulation of the Public Service Commission of Indiana, under indeterminate permits from said Public Service Commission of Indiana.

III

Said defendants admit that the plaintiff's bill of complaint is a suit of a civil nature, in equity, and is brought for the purpose of enjoining the enforcement of a certain order of the Public Service Commission of Indiana made and approved January 26, 1929, prescribing the rates and [fol. 73] charges to be made by the plaintiff for its electric service rendered in the City of Martinsville, Indiana, all as hereinafter more particularly alleged, and arises under the constitution and laws of the State of Indiana.

Said defendants admit that the plaintiff charges in its bill of complaint that the rates and charges prescribed in said order are confiscatory of the plaintiff's property, used and useful in furnishing electric service to the cities, towns

and to the public in general, and that the plaintiff therein alleges that by said order the plaintiff is deprived of its property without due process of law, and alleges therein that the plaintiff, by said order, is denied the equal protection of the laws in violation of its rights under the Fourteenth Amendment of the Constitution of the United States.

Said defendants admit that the amount in controversy in this suit exceeds the sum of Five Thousand Dollars ($5,000.00), exclusive of interest and costs.

IV

Said defendants admit that the plaintiff owns and operates plants and properties located in Vigo, Warren, Fountain, Morgan, Tippecanoe, Parke, Putnam, Owen, Clay, Greene and Sullivan Counties of the State of Indiana, utilized by it in the production, transmission and distribution of electricity, and the sale thereof, to cities and towns and the public in general in said counties; that the defendants admit that the plaintiff owns and operates power plants in the cities of Martinsville, Spencer, Sullivan and Clinton, Indiana, and furnishes electricity service to said cities and to approximately fifty other cities, towns and communities in said counties above named, and it supplies electricity to numerous industrial plants and rural individual customers not located within the corporate limits of cities and towns; the defendants admit that the plain-
[fol. 74] tiff buys electricity from the Indiana Electric Corporation, which has a large and modern generating plant in the coal beds of the Wabash River in close proximity to the territory served by the plaintiff; that it does not sell to Indiana Electric Corporation any current; the defendants admit that the plaintiff sells electricity to the Illinois Power and Light Company, Interstate Public Service Company, Northern Indiana Power Company and Attica Electric Company, and purchases electricity from time to time from said corporation, and also sells electricity to the cities of Covington, Veedersburg and other municipalities for re-sale by said municipalities over their own distribution systems to the inhabitants of said municipalities; that the plaintiff supplies approximately eighteen thousand individual customers with electricity scattered over the elev-n counties hereinbefore named.

Said defendants admit that the plaintiff's purchases and sales from and to said Illinois Electric Power and Light Company, Interstate Public Service Company, Northern Indiana Power Company and Attica Electric Company, are under contracts and agreements, on an interchange basis and said interconnections made available to the communities and customers of the power plants, facilities and resources of the plaintiff, and also the power plants, facilities and resources of the connecting utilities for regular or emergency service.

Said defendants admit that the plaintiff, in addition to its electric properties, also owns and operates a few small gas and water plants not involved in the proceedings before the Commission herein referred to and not involved in this proceeding, and all allegations herein as to property, income, cost, or otherwise, apply to and include only the plaintiffs' electric property and business.

[fols. 75-77] V

Said defendants admit that on March 16, 1929, seventeen citizens of the City of Martinsville, electric patrons of the plaintiff at Martinsville, Indiana, filed with the Public Service Commission of Indiana their petition asking for a reduction of electric rates in Martinsville, Indiana; that on said date the plaintiff had on file with the Public Service Commission of Indiana tariffs, schedules and rates for its service, but said defendants deny that said tariffs, schedules and rates did not yield a net revenue in excess of a fair return of the property of the plaintiff, used and useful in its electric service in the said City of Martinsville. Said defendants admit that while said petition was pending the plaintiff filed a new schedule of rates and charges for Martinsville which become effective July 1, 1927, but said defendants deny that the said rates which became effective on July 1, 1927, reduced the plaintiff's gross revenue in Martinsville during the following year in the sum of Eleven Thousand Four Hundred Sixty-nine Dollars ($11,469.00), below the revenues which it would have realized in the same business under the preceding rates. Said defendants admit that from time to time hearings were held upon said petition and that on January 26, 1929, the Public Service Commission of Indiana, made and approved an order and fixed

and designated therein schedules of rates and charges to be put into effect by the plaintiff upon all billings for service rendered at Martinsville on and after February 1, 1929, which said schedules of rates and charges are as follows:

"Here appears the schedule of rates contained in the order of Jan. 26, 1929, attached to the bill of complaint as Exhibit A."

[fol. 78] Thereafter on February 7, 1929, plaintiff filed with said Commission its petition for a rehearing of said cause, which petition was overruled and a rehearing denied by a supplemental order made by said Commission in said cause on February 15, 1929.

Said defendants admit that a certified copy of said order of said Commission, dated January 26, 1929, is attached to and made a part of the plaintiff's bill of complaint marked Exhibit A.

Said defendants further admit that a certified copy of said supplemental order of February 15, 1929, is attached to and made a part of the plaintiff's bill of complaint marked Exhibit B.

VI

Said defendants deny that on the 26th day of January, 1929, plaintiff owned property used and useful in the generation, transmission, distribution and sale of electricity that had a value of $5,026,437.59 or more; that said defend-
[fol. 79] ants do not know whether in the year 1928 plaintiff's gross revenue was $1,691,154.84, and therefore call for the proof thereon. Said Defendants deny that in the year 1928 the total operating expenses of plaintiff were $1,412,320.63 and say that said expenses were less than said figure; that the balance for said year available for return was more than $278,834.21; and defendants deny that the revenues available for return in 1928 were inadequate, or unfair or unreasonable to plaintiff.

Said defendants do not know what effect the rates at Clinton and Greencastle would have had on plaintiff's revenue in that year and call for the proof thereon.

Said defendants deny that the rates fixed by said Commission are confiscatory and that they take plaintiff's property without due process of law, and that they violate plain-

tiff's rights under the Fourteenth Amendment to the Constitution of the United States.

VII

Said defendants admit that said Commission found that the cost of electricity at the "gateway" at Martinsville, including an allowance which would produce a fair return on plaintiff's general power system, is $.0172 per KWH; that it fixed the fair value of plaintiff's local property at Martinsville used and useful for distributing current in Martinsville at $87,000; said defendants say that said valuation was not based on the sole testimony of the Commission's engineer, but was based on all of the evidence in the case, and defendants say that said value is not too low for the fair value of said property as a rate base; that no cash working capital was included in said fair value figure because adequate provision for such capital had been made by said Commission in relation to plaintiff's general business; that said Commission did include working capital in the form of material and supplies at Martinsville in the amount of $6,566; that the Commission's order refused a separate [fol. 80] allowance for current depreciation because plaintiff, under the terms of its mortgage, was already providing an adequate fund for depreciation purposes; that the Commission found the value of said property as of November 30, 1927, and added all additions made to that date; that plaintiff did not request, before said order was issued, that the Commission make further provision for additions in its finding of fair value; said defendants deny that the rates fixed by the Commission will not yield a return of 7% on $87,000, and say that they will yield such return.

VIII

Said defendants say that the actual cost of current delivered at the gateways and sold to allied companies was $.0184 per KWH on January 26, 1929, and during the year 1928, and deny further that such cost was $.024996 per KWH at such gateways exclusive of said allied companies. Said defendants deny that the charge of $.0172 per KWH used in fixing said rates is confiscatory of plaintiff's power system property and that it takes said property without due process of law and that it violates plaintiff's rights under

the Fourteenth Amendment of the Constitution of the United States.

IX

Said defendants deny that the sum of $363,225.72 is required to make a fair return on the fair value of plaintiff's general power system property and to provide a reasonable depreciation charge on the depreciable property; said defendants deny that the method used, and the provision made, by the Commission for a fair return of plaintiff's power system property, allocable to Martinsville is arbitary, unreasonable or in denial of due process of law.

Said defendants deny that the fair value of the power system property as of December 31, 1928, was $3,360,999.16, and said defendants deny that a fair return thereon is 8% or $269,437.93; said defendants deny that as of December 31, [fol. 81] 1928, the cost of reproduction new of plaintiff's depreciable power system property was $2,778,864.16; and deny that a fair rate of depreciation thereon is 4%, or $111,433.57, and deny further that the required depreciation and return is $380,871.50.

X

Said defendants deny that said Commission acted arbitrarily or in denial of due process of law in fixing said rates. Said defendants deny that said Commission refused to make an allowance for current depreciation, and say that said Commission expressly found in its order that the "gateway" cost of electricity at $.0172 per KWH "includes production cost, depreciation and return."

Said defendants deny that plaintiff's rates have been inadequate to create a depreciation reserve, but say that under the provisions of Article 5 of a mortgage on plaintiff's property plaintiff has expended or set aside for maintenance and depreciation out of its gross earnings, that plaintiff has charged items properly chargeable to depreciation to maintenance, and has, under said mortgage provision, used part of said 12½% fund for new construction.

XI

Said defendants deny that said Commission in determining said rates arbitrarily and unreasonably and in denial of due process of law failed and refused to include or recog-

nize working cash capital as a part of the fair value of plaintiff's property; said defendants say that such element was not included in the value of the local property at Martinsville and that this omission was proper because said property is not locally managed or operated, but is managed and operated out of plaintiff's general office elsewhere and as a part of plaintiff's general business; that as to plaintiff's property generally said Commission did recognize working cash capital and had that element and a fair return on it as a part of plaintiff's power system property in view [fol. 82] when it calculated the "gateway" cost of electricity at Martinsville at $.0172 per KWH.

XII

Said defendants deny that it was unfair and unreasonable to determine the "gateway" cost of electricity at Martinsville from the average cost of all electricity sold and delivered by plaintiff; said defendants deny that, in order to determine a fair gateway price, sales to the Attica Electric and Northern Indiana Power Companies should be eliminated from revenue, and deny that $.024996 is a fair gateway charge in an inquiry of what are just and reasonable retail rates to be charged to consumers at Martinsville.

Said defendants admit that during the year ending July 31, 1927, plaintiff delivered 2,180,124 KWH to the Martinsville Gateway for Martinsville consumers; 30,122,656 KWH to the several municipal "gateways"; and 21,335,114 KWH to the Attica Electric and Northern Indiana Power Companies.

Said defendants do not know the quantities of electricity delivered by plaintiff during the calendar year of 1928 and therefore neither affirm nor deny plaintiff's allegations as to such quantities and call for the proof thereon.

Said defendants deny that 1¼ cents per KWH is a fair and reasonable charge for the electricity sold by plaintiff to allied companies; said defendants say that said price is unfair and unreasonable in relation to the charge that would have to be made for electricity at the municipal "gateways" in order to provide revenues to meet the expenses and requirements for return of the general power system; that approximately two-fifths of plaintiff's business consists of buying electricity and selling it to allied companies and

that the cost of conducting that portion of the business is inextricably involved and included in the cost of conducting plaintiff's entire business, so that it would be unfair to the [fol. 83] patrons at Martinsville and at other municipalities in plaintiff's system to attempt to segregate the business relating to the sale of electricity to allied companies and charge a much higher "gateway" price at municipalities than plaintiff charges at its allied company "gateways."

XIII

Said defendants admit that the Commission computed the "gateway" cost at Martinsville at $.0172 per KWH on the basis of figures for the year ending July 31, 1927, but deny that $.021 would be required during that period to provide revenues for proper operating expenses, depreciation and return on plaintiff's general power system property, and deny that for the same purposes a charge of $.0184 would be required for the calendar year of 1928. Defendants deny that a gateway charge of $.0270747 for 1927, or $.024996 for 1928 represent fair and proper average gateway costs for those periods.

XIV

Said defendants deny that plaintiff's used and useful local property at Martinsville was of the fair value of $141,520.38 on December 31, 1928.

Said defendants deny that plaintiff sustained an operating deficit of $1,575.32 or in any other amount at Martinsville during 1928, and deny that the cost of said business in 1928 was $96,680.79. Defendants do not know whether the gross revenue for 1928 at Martinsville was $95,105.47, and therefore call for the proof thereon.

Said defendants deny that the rates fixed by the Commission, if in force during 1928, would have reduced revenues in the sum of $14,566.33 or would have caused an operating deficit of $16,141.65 or any other amount; said defendants deny that if gateway charges of $.0184 were applied at Martinsville the rates fixed by the Commission would yield only $421.73 for return on the Martinsville [fol. 84] property, and deny that if such charge were $.0172 only $3,435.08 would have been yielded for return.

Said defendants deny that according to the method used,

by the Commission to fix said rates the same are inadequate, unfair and unreasonable or confiscatory or violative of any rights of plaintiff under the Fourteenth Amendment of the Constitution of the United States.

XV

Said defendants deny that the rates in force at Martinsville prior to January 26, 1929, will not yield more than a fair return on plaintiff's used and useful property at Martinsville, and deny that the revenues from said rates together with plaintiff's other revenues will yield less than a fair return on the fair value of plaintiff's property generally.

Said defendants do not know whether the rates at Martinsville prior to January 26, 1929, were lower than at other cities served by plaintiff, and call for the proof thereon. Said defendants deny that it is more expensive to serve the people at Martinsville than elsewhere, and say it is immaterial what the cost of manufacturing electricity locally at Martinsville would be.

XVI

Said defendants deny that plaintiff has no adequate remedy at law, and say that a legal remedy is provided to plaintiff by the statutes of Indiana for contesting the validity or reasonableness of said rates in State Courts.

XVII

Said defendants deny that plaintiff is in need of immediate relief, and deny that it is entitled to permanent relief from said order of the Commission.

Said defendants say that plaintiff's bill herein should be dismissed for want of equity.

[fols. 85-89] Wherefore said defendants ask for judgment dismissing plaintiff's bill and for costs and all other proper relief.

James M. Ogden, Attorney General of Indiana;
Samuel R. Artman, Assistant Attorney General of Indiana, said Defendants' Attorneys.

[fol. 90] IN UNITED STATES DISTRICT COURT

ORDER GRANTING PETITION TO INTERVENE—April 6, 1929

It is ordered by the Court that the petition of the City of Martinsville to intervene be, and the same is, hereby granted.

Said City of Martinsville also files answer, which answer is as follows:

[fol. 91] IN UNITED STATES DISTRICT COURT

[Title omitted]

ANSWER OF DEFENDANT CITY OF MARTINSVILLE—Filed April 6, 1929

The City of Martinsville, leave of Court to intervene and appear as a defendant in this cause having first been had and obtained, says:

I

This defendant admits that each of the defendants, Singleton, McCardle, Ellis, Harmon and McIntosh, constitute the Public Service Commission of Indiana; that defendants, James M. Ogden and Harry G. Leslie are respectively the Attorney General and Governor of Indiana.

[fol. 92]

II

Defendant admits that plaintiff is an Indiana corporation doing business as a public utility in furnishing electricity to cities and towns and the public.

III

Defendant admits this is a civil suit in equity to enjoin the enforcement of Order No. 8894 of the Public Service Commission of Indiana, entered January 26, 1929, fixing rates to be charged by plaintiff for the furnishing of electricity to defendant, City of Martinsville, and to the inhabitants thereof, but denies that said rates are confiscatory of plaintiff's property or, that said order deprives plaintiff of its property without due process of law or de-

prives it of the equal protection of the laws in violation of plaintiff's rights under the Fourteenth Amendment of the Constitution of the United States.

Defendant admits that the sum in controversy exceeds the sum of $5,000.

IV

Defendant admits that plaintiff owns and operates plants and properties located in Vigo, Warren, Fountain, Morgan, Tippecanoe, Parke, Putnam, Owen, Clay, Greene and Sullivan Counties, Indiana, utilized by it in the production, transmission and distribution of electricity and the [fol. 93] sale thereof to cities and towns and to the public.

Defendant admits that plaintiff owns electric power plants at the cities of Martinsville, Spencer, Sullivan, and Clinton, Indiana, but denies that said cities are served by said plants, and says plaintiff serves said cities with electricity generated elsewhere; that said plants at Martinsville, Spencer, Sullivan and Clinton are not used or useful in the business of plaintiff in furnishing electricity to the City of Martinsville and to its inhabitants; that said plants have been almost altogether idle since plaintiff acquired the electricity utility properties in said cities of Martinsville, Spencer, Sullivan and Clinton.

Defendant admits that plaintiff purchases electric current from the Indiana Electric Corporation and that it sells current to, and sometimes purchases current from, the Illinois Power & Light Company, Interstate Public Service Company, Northern Indiana Power Company, and the Attica Electric Company, and that it sells electricity to the cities of Covington, Veedersburg and other municipalities for resale by them to their inhabitants over their own distributing systems;

Defendant admits that the aforementioned companies have contracts and interconnections with each other for the purpose of making available the electric power of the several companies to each of said companies, and defendant says that said companies are owned, managed and operated in common.

[fol. 94] V

Defendant admits that on March 16, 1927, seventeen citizens of Martinsville, electric patrons of plaintiff at said

city, filed their petition with the Public Service Commission of Indiana for a reduction of electric rates at Martinsville; that on said date plaintiff had on file with said Commission, and was collecting at Martinsville, certain tariffs, schedules and rates for its services, but defendant denies that the same did not yield a net revenue in excess of a fair return upon the property of plaintiff used and useful in rendering such service to the city of Martinsville and to its inhabitants, and defendant says that said rates did at said time yield more than a fair return on such property.

Defendant admits that plaintiff put in effect new rates at Martinsville on July 1, 1927, but denies that said rates reduced plaintiff's gross revenue at Martinsville during the following year in the sum of $11,469.00 below the revenue the old rates would have produced.

Defendant admits that on January 26, 1929, said Commission by its order fixed the rates to be charged at Martinsville by plaintiff as the same are shown in the schedule set out in paragraph V of plaintiff's bill of complaint.

Defendant admits that plaintiff's petition for a rehearing of the cause in which said order was issued was over-[fol. 95] ruled by said Commission on February 15, 1929, and that exhibits "A" and "B" to plaintiff's bill of complaint are copies of said orders of said Commission.

VI

Defendant denies that on the 26th day of January, 1929, plaintiff owned property used and useful in the generation, transmission, distribution and sale of electricity that had a value of $5,026,437.59 or more; that defendant does not know whether in the year 1928 plaintiff's gross revenue was $1,691,154.84, and therefore calls for the proof thereon. Defendant denies that in the year 1928 the total operating expenses of plaintiff was $1,412,320.63 and says that said expenses were less than said figure; that the balance for said year available for return was more than $278,834.21; and defendant denies that the revenues available for return in 1928 were inadequate, or unfair or unreasonable to plaintiff.

Defendant does not know what the rates in effect at Clinton and Greencastle were or now are or what effect the

rates there in force now would have had on plaintiff's revenue in 1928, and calls for the proof thereon.

Defendant denies that the rates fixed by said Commission are confiscatory and that they take plaintiff's property without due process of law, and that they violate plaintiff's rights under the Fourteenth Amendment to the Constitution of the United States.

[fol. 96] VII

Defendant admits that said Commission found that the cost of electricity at the "gateway" at Martinsville, including an allowance which would produce a fair return on plaintiff's general power system, is $.0172 per KWH; that it fixed the fair value of plaintiff's local property at Martinsville used and useful for distributing current in Martinsville at $87,000; Defendant says that said valuation was not based on the sole testimony of the Commission's engineer, but was based on all of the evidence in the case, and defendant says that said value is not too low for the fair value of said property as a rate base; that no cash working capital was included in said fair value figure because adequate provision for such capital had been made by said Commission in relation to plaintiff's general business; that said Commission did include working capital in the form of material and supplies at Martinsville in the amount of $6,566; that the Commission's order refused a separate allowance for current depreciation because plaintiff, under the terms of its mortgage, was already providing an adequate fund for depreciation purposes; that the Commission found the value of said property as of November 30, 1927, and added all additions made to that date; that plaintiff did not request, before said order was issued, that the Commission make further provision for additions in its finding of fair value; defendant denies that the rates fixed by the Commission will not yield a return of 7% on $87,000, and says that they will yield such return.

[fol. 97] VIII

Defendant denies that the actual cost of current delivered at the gateways and sold to allied companies was $.0184 per KWH on Jan. 26, 1929 and during the year of 1928,

and denies further that such cost was $.024996 per KWH at such gateways exclusive of said allied companies. Defendant denies that the charge of $.0172 per KWH used in fixing said rates is confiscatory of plaintiff's power system property and that it takes said property without due process of law and that it violates plaintiff's rights under the Fourteenth Amendment of the Constitution of the United States.

IX

Defendant denies that the sum of $363,225.72 is required to make a fair return on the fair value of plaintiff's general power system property and to provide a reasonable depreciation charge on the depreciable property; defendant denies that the method used, and the provision made, by the Commission for a fair return of plaintiff's power system property allocable to Martinsville is arbitrary, unreasonable or in denial of due process of law.

Defendant denies that the fair value of the power system property as of Dec. 31, 1928, was $3,360,999.16, and defendant denies that a fair return thereon is 8% or $269,437.93; defendant denies that as of Dec. 31, 1928, the cost of reproduction new of plaintiff's depreciable power system property was $2,778,864.16, and denies that a fair rate of depreciation thereon is 4%, or $111,433.57, and denies further that the required depreciation and return is $380,871.50.

[fol. 98]

X

Defendant denies that said Commission acted arbitrarily or in denial of due process of law in fixing said rates. Defendant denies that said Commission refused to make an allowance for current depreciation, and says that said Commission expressly found in its order that the "gateway" cost of electricity at $.0172 per KWH "includes production cost, depreciation and return."

Defendant denies that plaintiff's rates have been inadequate to create a depreciation reserve, but says that under the provisions of Article V of a mortgage on plaintiff's property plaintiff has expended or set aside for maintenance and depreciation out of its gross earnings annually a sum equal to 12½% of its gross earnings, that plaintiff has charged items properly chargeable to depreciation to maintenance, and has, under said mortgage provision, used part of said 12½% fund for new construction.

XI

Defendant denies that said Commission in determining said rates arbitrarily and unreasonably and in denial of due process of law failed and refused to include or recognize working cash capital as a part of the fair value of plaintiff's property; defendant says that such element was not included in the value of the local property at Martinsville and that this omission was proper because said property is not locally managed or operated, but is managed and operated out of plaintiff's general office elsewhere and as a part of plaintiff's general business; that as to plaintiff's [fol. 99] property generally said Commission did recognize working cash capital and had that element and a fair return on it as a part of plaintiff's power system property in view when it calculated the "gateway" cost of electricity at Martinsville at $.0172 per KWH.

XII

Defendant denies that it was unfair and unreasonable to determine the "gateway" cost of electricity at Martinsville from the average cost of all electricity sold and delivered by plaintiff; defendant denies that, in order to determine a fair gateway price, sales to the Attica Electric and Northern Indiana Power companies should be eliminated from revenue, and denies that $.024996 is a fair gateway charge in an inquiry of what are just and reasonable retail rates to be charged to consumers at Martinsville.

Defendant admits that during the year ending July 31, 1927 plaintiff delivered 2,180,124 KWH to the Martinsville Gateway for Martinsville consumers; 30,122,656 KWH to the several municipal "gateways"; and 21,335,114 KWH to the Attica Electric and Northern Indiana Power companies.

Defendant does not know the quantities of electricity delivered by plaintiff during the calendar year of 1928 and therefore neither affirms nor denies plaintiff's allegations as to such quantities and calls for the proof thereon. Defendant denies that a 66,000 volt line is needed to serve local customers of defendant.

[fol. 100] Defendant denies that in relation to the inquiry of a fair gateway charge at Martinsville 1¼ cents per KWH is a fair and reasonable charge for the electricity

sold by plaintiff to allied companies; defendant says that said price is unfair and unreasonable in relation to the charge that would have to be made for electricity at the municipal "gateways" in order to provide revenues to meet the expenses and requirements for return of the general power system; defendant says that approximately two-fifths of plaintiff's business consists of buying electricity and selling it to allied companies and that the cost of conducting that portion of the business is inextricably involved and included in the cost of conducting plaintiff's entire power system business, so that it would be unfair to the patrons at Martinsville and at other municipalities in plaintiff's system to attempt to segregate the business relating to the sale of electricity to allied companies and charge a much higher "gateway" price at municipalities than plaintiff charges at its allied company "gateways."

XIII

Defendant admits that the Commission computed the "gateway" cost at Martinsville at $.0172 per Kw. H. on the basis of figures for the year ending July 31, 1927, but denies that $.021 would be required during that period to provide revenues for proper operating expenses, depreciation and return on plaintiff's general power system property, and denies that for the same purposes a charge [fol. 101] of $.0184 would be required for the calendar year of 1928. Defendant denies that a gateway charge of $.0270747 for 1927, or $.024996 for 1928 represent fair and proper average gateway costs for those periods.

XIV

Defendant denies that plaintiff's used and useful local property at Martinsville was of the fair value of $141,520.38 on Dec. 31, 1928.

Defendant denies that plaintiff sustained an operating deficit of $1,575.32 or in any other amount at Martinsville during 1928, and denies that the cost of said business in 1928 was $96,680.79. Defendant does not know whether the gross revenue for 1928 at Martinsville was $95,105.47, and therefore calls for the proof thereon.

Defendant denies that the rates fixed by the Commission, if in force during 1928, would have reduced revenues in the

sum of $14,566.33 or would have caused an operating deficit of $16,141.65 or any other amount; defendant denies that if gateway charges of $.0184 were applied at Martinsville the rates fixed by the Commission would yield only $421.73 for return on the Martinsville property, and denies that if such charge were $.0172 only $3,435.08 would have been yielded for return.

Defendant denies that according to the method used, by the Commission to fix said rates the same are inadequate, unfair and unreasonable or confiscatory or violative of any [fol. 102] rights of plaintiff under the Fourteenth Amendment of the Constitution of the United States.

XV

Defendant denies that the rates in force at Martinsville prior to January 26, 1929 will not yield more than a fair return on plaintiff's used and useful property at Martinsville, and denies that the revenues from said rates together with plaintiff's other revenues will yield less than a fair return on the fair value of plaintiff's property generally.

Defendant does not know whether the rates at Martinsville prior to January 26, 1929 were lower than at other cities served by plaintiff, and calls for the proof thereon. Defendant denies that it is more expensive to serve the people at Martinsville than elsewhere, and says it is immaterial what the cost of manufacturing electricity locally at Martinsville would be.

XVI

Defendant denies that plaintiff has no adequate remedy at law, and says that a legal remedy is provided to plaintiff by the statutes of Indiana for contesting the validity or reasonableness of said rates in State Courts.

XVII

Defendant denies that plaintiff is in need of immediate relief, and denies that it is entitled to permanent relief [fol. 103] from said order of the Commission.

Wherefore defendant, City of Martinsville, in its own behalf and in behalf of all other users of electricity furnished by plaintiff in the City of Martinsville, prays that plaintiff be denied all relief prayed for in its bill of com-

plaint herein, that said bill be dismissed and that defendant recover judgment for its costs herein and for all other proper relief.

Ralph K. Lowder, Arthur L. Gilliom, Solicitors for Defendant City of Martinsville.

[fol. 104] IN UNITED STATES DISTRICT COURT

TEMPORARY INJUNCTION—April 6, 1929

Comes now the plaintiff, by Fesler, Elam & Young, its solicitors, and also come the defendants, by James M. Ogden, Attorney General of Indiana, and this cause came on to be heard by the Honorable Samuel Alschuler, Judge of the United States Circuit Court of Appeals for the Seventh Circuit, the Honorable Robert C. Baltzell, Judge of the District Court of the United States for the Southern District of Indiana, and the Honorable Thomas W. Slick, Judge of the District Court of the United States for the Northern District of Indiana, upon plaintiff's application for a temporary injunction pending final hearing and determination herein, and thereupon, upon consideration thereof, and with the consent of the defendants, it was ordered, adjudged and decreed by the Court that pending final hearing and determination of this cause, the electric rates and charges for the City of Martinsville, fixed by the Public Service Commission of Indiana in its order of January 26, 1929, herein complained of, be and they are hereby suspended, and the defendants, and each of them, be and they are hereby restrained and enjoined from enforcing or attempting to enforce said rates and charges fixed by said order complained of, and from interfering with the enforcement and collection by plaintiff of the rates and [fol. 105] charges to the City of Martinsville established by plaintiff and in effect immediately prior to the date of said order of the Public Service Commission of Indiana complained of, all upon the condition, however, that in the event the electric rates and charges for the City of Martinsville fixed by said order complained of become effective upon final hearin gand determination herein, the plaintiff shall refund to its customers respectively, or credit to

their respective accounts, any sums collected by plaintiff in excess of said rates and charges complained of.

[fols. 106-110] IN UNITED STATES DISTRICT COURT

ORDER OF REFERENCE TO SPECIAL MASTER—June 3, 1930

Come now Honorable Samuel Alschuler, Judge of the United States Circuit Court of Appeals for the Seventh Circuit, Honorable Robert C. Baltzell, Judge of the District Court of the United States for the Southern District of Indiana, and Honorable Thomas W. Slick, Judge of the District Court of the United States for the Northern District of Indiana, as a statutory court organized for the purpose of hearing and determining this cause.

Also come the parties by their respective counsel, and upon the representation of counsel for the plaintiff that the trial of this cause will require from four to six days, said court, upon its own motion, now orders that Albert Ward, be and he is hereby appointed Special Master in the above entitled cause, and said cause is now hereby referred to him as such Special Master to hear the evidence and report same together with his findings of fact and conclusions of law thereon to this court.

[fol. 111] IN UNITED STATES DISTRICT COURT

[Title omitted]

SPECIAL MASTER'S REPORT—Filed July 2, 1931

To the honorable. Samuel Alschuler, Robert C. Baltzell, and Thomas W. Slick, Judges, organized as a statutory court for hearing and determining this cause:

The undersigned, Albert Ward, who was appointed Special Master in the above entitled cause on June 3, 1930, to hear the evidence and report same, together with his findings of facts and conclusions of law thereon, to this Honorable Court, now respectfully submits the following report containing the finding of facts and conclusions of law stated

thereon by him, and which he now presents as his report as Special Master in the above entitled cause.

[fols. 112-115] The eivdence was all taken and heard in the Law Library Room of the Federal Building in Indianapolis, Indiana, beginning September 2, 1930 and was concluded September 19, 1930. Argument was heard on December 18 & 19, 1930.

Appearances:

The Plaintiff appeared by James W. Fesler, Esq., Harvey J. Elam, Esq., Howard S. Young, Esq., Glenn Van Auken, Esq., and Silas C. Kivett, Esq., its Attorneys.

The Defendants appeared by George W. Hufsmith, Esq., Deputy Attorney General of the State of Indiana. The City of Martinsville, Indiana, appeared by Arthur L. Gilliom, Esq., and Ralph K. Lowder, Esq., its Attorneys.

Finding of Facts

* * * * * * *

[fol. 116]

V

The plaintiff owns and operates an interconnected system of electric plants and properties in a territory lying in Western Indiana and comprised of eleven counties, namely, Sullivan, Greene, Owen, Clay, Vigo, Parke, Putnam, Morgan, Fountain, Warren and Tippecanoe, utilized by it in the production, transmission and distribution of electrical current and the sale thereof to cities and towns and the public in general in said counties.

Plaintiff's said system in turn interconnects with the electric property systems of six other companies named in Finding No. 9 herein, which give service in large areas in the State of Indiana.

More than 99% of the stocks, bonds and other securities of these seven companies is owned by a corporation known as the Central Indiana Power Company. These affiliated companies have common officers and a common management and the interconnected properties of these companies are planned, constructed and operated as one large system, although each acts independently, except as herein set out. Such interconnections make it possible to form loops

whereby electricity may be served from the same generating equipment, which enables the plaintiff, if a section of line is out, to feed current around the loop the other way, thus making continuous service possible.

This affiliated system is itself connected with other large power systems by means of which connections the affiliated system has access to large supplies of power generated at large generating plants.

[fol. 117] By order of the common management of these seven affiliated companies an arrangement exists among them for the interchange of power. Balances resulting from such exchange of power are settled for on the basis of 1¢ per K. W. H.

The electric plants and properties of plaintiff consist chiefly of transmission, transformation and local distribution properties. It owns and operates power plants in the cities of Martinsville, Sullivan and Clinton, Indiana and furnishes electric service to said cities; these plants were built by former owners to generate power for distribution in those cities and were not constructed as a part of plaintiff's interconnected system, although they are now connected with the affiliated system and are only occasionally operated for the purpose of manufacturing power for the pool in the affiliated system; they are never operated for the exclusive benefit of plaintiff's own system.

The plaintiff purchases almost all of its power from said Indiana Electric Corporation, which has a large and modern generating plant known as the Dresser Plant located on the Wabash River in Vigo County and which is to the South of, but in close proximity to, part of the territory served by the plaintiff and in which it operates; much of the power thus purchased by plaintiff is delivered over its transmission lines to affiliated companies whose properties are North of plaintiff's territory; the plaintiff does not sell any electrical current to said Indiana Electrical Corporation. The plaintiff does sell electricity to the Illinois Power & Light Company, Interstate Public Service Company, Northern Indiana Power Company and Attica Electric Company and purchases electricity from time to time from said last named corporations.

[fol. 118] Of the power delivered by plaintiff within its own system, some of it is sold and delivered by the plaintiff

to the cities of Covington and Veedersburg, Indiana, and other municipalities, for re-sale by such municipalities over their own distribution systems to their inhabitants.

Plaintiff supplies electricity to approximately 18,000 individual customers scattered throughout the eleven counties hereinbefore named.

The purchases and sales of electrical current by plaintiff from and to said Illinois Power & Light Company, Interstate Public Service Company, Northern Indiana Power Company and the Attica Electric Company are made pursuant to an arrangement between the plaintiff and such other companies providing for the interchange of current as hereinbefore set out and which makes available to the communities and customers served by the plaintiff all power plants, facilities and resources of such connecting utilities for regular or emergency supply.

The plaintiff supplies electrical current to approximately fifty cities and towns in the counties above set out and also supplies electrical current to numerous industrial plants and individual customers not located within the corporate limits of cities and towns.

The plaintiff furnishes electric service to the inhabitants of the city of Martinsville over its local distribution system with current coming from its interconnected power system property.

In addition to the electric properties owned by the plain-
[fol. 119] tiff, it also owns and operates a few small gas and water plants, but the rates for gas and water furnished by means of such plants are not involved in this proceeding in any way, are not included herein in any manner, except as it may be necessary to allocate certain general operating expenses occasioned in part by such gas and water plants, and all references herein as to property, income, cost, or otherwise of plaintiff's property, except for such allocation of general operating expenses, shall apply to and include plaintiff's electric property and electric business as is distinguished from any and all of its gas and water plants.

[fols. 120-122] VI

On March 16, 1927 seventeen citizens of the City of Martinsville, Indiana, electric patrons of the plaintiff at Martinsville, filed with said Public Service Commission of Indiana their petition asking for a reduction of electric rates

in Martinsville, Indiana. On said date plaintiff had on file with the Public Service Commission of Indiana tariffs, schedules and rates for its service, and while said petition was pending plaintiff filed a new schedule of rates and charges for Martinsville, which became effective July 1, 1927; that said petition remained on file and from time to time thereafter hearings were held upon the same and on January 26, 1929 said Public Service Commission of Indiana made and approved an order and fixed and designated therein schedules of rates and charges to be put into effect by plaintiff upon all billings for service rendered by it at Martinsville on and after February 1, 1929, which said schedules of rates and charges thus made by said Commission are as follows:

"Here appears the schedule of rates contained in the order of Jan. 26, 1929, attached to the bill of complaint as Exhibit A."

[fol. 123] On February 7, 1929 plaintiff filed with said Public Service Commission its petition asking for a rehearing of said cause, which said petition was overruled, rehearing was denied and a supplemental order made and entered by said Public Service Commission in said cause and approved February 15, 1929.

That there is attached to the plaintiff's bill herein a certified copy of said order of said Public Service Commission dated January 26, 1929, is expressly made a part of said bill and is marked and known as Exhibit "A" therewith; that there is also attached to and made a part of the plaintiff's bill herein a certified copy of said supplemental order of said Public Service Commission dated February 15, 1929, which is marked as Exhibit "B" with said petition.

Exhibit No. 12-A is said original order approved January 26, 1929, and Exhibit No. 12-B is the supplemental [fol. 124] order approved February 15, 1929, both of which were introduced in evidence.

The rates and schedules hereinabove in this finding set out are the rates and schedules complained of by the plaintiff in its bill herein, and alleged by it therein to be confiscatory of its property used and useful in furnishing electric service to cities and towns and the public in general.

[fol. 125] VII

The Public Service Commission, in determining and fixing the rates and schedules set out in finding No. six, after hearing evidence thereon, found that the fair value of plaintiff's local property at Martinsville used and useful for the distribution of current in Martinsville was Eighty Seven Thousand ($87,000.00) Dollars as of November 30, 1927. In arriving at such value, the Commission did not include therein the allowance of any sum or amount for working cash capital; it did include and allow therein the sum of $6,566.00 for materials and supplies: it refused to allow any additional amount for working cash capital for the reason that it had theretofore granted authority to the entire Wabash Valley Electric system to procure working capital by the issuance of preferred and common stock, and that the Martinsville Electric Company was a part of the system for which said preferred and common stock were sold to provide such working capital, and for the further reason that it regarded said sum of $6,566.00 as an allowance sufficiently adequate to cover the item of working cash capital. In fixing said value of $87,000.00 the Commission made no allowance to the plaintiff for additions to plaintiff's local property at Martinsville between November 30, 1927 and January 26, 1929. The Commission made no separate allowance for depreciation, either upon the Martinsville local property or power system property or the property as a whole for the reason assigned by it that under the terms of a mortgage theretofore given by the plaintiff upon its entire property it was required to set up on its books from the earnings a reserve amounting to 12½% of the gross revenues obtained from all sources except income securities. Its conclusion was based upon Article V of said mortgage, which recites that

"All expenditures made by the company during any of such years properly and ordinarily chargeable to mainte-
[fol. 126] nance and depreciation of its property shall be charged on the books of the company to maintenance and depreciation, and the aggregate amount so expended for maintenance and depreciation by the company in any such year shall be treated as a credit to the fund for such year."

Upon the foregoing provision of said mortgage the Commission concluded that maintenance and depreciation

charges were covered in said 12½% provision of the mortgage, and accordingly made no allowance for depreciation.

[fol. 127] VIII

In fixing and determining the rates and schedules set out in finding No. Six, the Commission established such rates and schedules for the City of Martinsville as a separate segregated unit and concluded that the distribution system at Martinsville should be considered separately from the power system and the general system of distribution of the plaintiff, and found that the fair rate of charge, by the general system of plaintiff to the City of Martinsville, for electrical energy furnished at the "gateway" of said city for service therein, is $.0172 per K. W. H. The Commission further concluded that the rates and charges thus established by it would be adequate to meet the requirements of the company for rendering service to Martinsville and yield a 7% return on the fair value of the company's property.

On the matter of depreciation, the Commission concluded as follows:

"Demand by respondent for allowance for depreciation is met, as shown by respondent's statement filed, by provision in Article V of mortgage on the utility property, in which 12½% of certain gross revenues of the company is set aside to be used for maintenance, depreciation and improvement. For this reason no additional allowance for depreciation should be made."

[fol. 128] IX

When the Wabash Valley Electric Company first began to operate, it bought some of its electricity from other companies and manufactured some with small individual plants; it began operating at a time when electricity was generated in small isolated generating plants located in, and many times owned by, the community served; at that time there were a great many municipal corporations, coal mines and other industries which were then operating their own plants and each one thus operating was a natural unit in itself; there were no inter-connections between such generating plants in the different communities and ordinarily no outside help was possible in emergencies; during the past few years this practice has been changed, with the rapid increase

in the industrial load placed upon such local generating plants, and at the time the petition herein was filed, and subsequent thereto, many of such municipalities, coal mines and other industries had abandoned the practice of manufacturing their own current and were buying their electrical power from the plaintiff, to the extent that over 50% of the K. W. H. sold by plaintiff on its meters to its customers is in fact sold and furnished to coal mines and other industries, which are entirely outside of municipal boundaries.

In the past few years it has been the general practice of electrical engineers to locate and build very large generating plants upon large bodies or flows of water, and where fuel is cheaply and certainly available, and then transmit the electricity generated at such plants over high voltage lines to ultimate consumers scattered over large areas, and whenever it is commercially expedient and such inter-connections can be made, such systems are thus connected for the purpose of avoiding duplication of investment and enabling [fol. 129] each system to act as reserve for the others in case of emergency. This is regarded as good practice among utility owners, for the reason that where a company which is dependent solely upon its own generating resources, it must use reasonable foresight in protecting or insuring service to its customers, which requires that it have a reserve capacity available to take care of emergencies which occur when the plant is down from time to time, and standard practice requires that such company should have an excess capacity available from some source. Such inter-connections of systems allows the different companies involved therein to stand by, each for the other, and does not require each individual company to have the amount of reserve that it would otherwise be obliged to provide for; such inter-connections are also advantageous in the way of building loops whereby electricity may be served from the same generating plant in different directions, and if there is a section of line out, it is possible to feed around the loop, and in case it is necessary to take out lines and fix insulators and other repairs it makes it possible to give continuous service. It is also recognized as the best practice for such inter-connecting companies to obtain their supply of electricity from large generating units whenever that is possible. Conformable to this accepted and recognized plan of generating, transmitting and distributing electricity, a large generating plant known as the

Dresser Plant was built in the midst of the Indiana coal field on the Wabash River near Terre Haute, Indiana by the Indiana Electric Corporation. This plant has a generating capacity of over 300,000,000 K. W. H. per year.

[fol. 130] In order to finance the plant it was necessary to assemble a group of electric properties with sufficient load and income to make the project commercially expedient. Thereupon existing electric utilities scattered throughout Central Indiana were acquired by affiliated corporations and these properties were connected with the Dresser Plant in order to build up a demand on that plant comparable to its capacity, and sufficient to permit its economical operation. Among these affiliated corporations were the Wabash Valley Electric Company, plaintiff herein, the Attica Electric Company, Colfax Electric Company, Indiana Electric Corporation, Northern Indiana Power Company, Moran Electric Light & Power Company and the Mulberry Light & Power Company, the combined demands of said several corporations, and others not affiliated, aggregating approximately the capacity of the Dresser Generating Plant. The Wabash Valley System alone would not require electricity sufficient to make it possible to build or operate such a generating plant as the Dresser Plant and it is necessary that the Dresser Plant serve not only the customers of the Wabash Valley System, but the customers of such other affiliated utilities, and certain utilities not affiliated.

The City of Martinsville is served with electricity by the plaintiff as a part of the entire Wabash Valley System, which system is enabled to have the benefit of the generation of electricity in large units, because of its hook-up with such other corporations similarly organized and which draw upon the same large generating source.

[fol. 131] The plaintiff introduced in evidence its Exhibit No. 1, a map of the State of Indiana, and upon which is indicated in green lines the property which is owned and operated by the plaintiff and used by it in the distribution of electricity. Its distribution system is connected with and has available electrical current from large generating plants, in addition to the Dresser Plant, as follows; a large steam plant known as the Twin Branch Plant, located at South Bend, Indiana, a plant near the southeast corner of Indiana known as the Columbia Plant, and in 1930 it ac-

quired a connection with a large plant near the Indiana-Illinois State Line on Lake Michigan known as the State Line Plant, and which is supplemented by a new plant at Michigan City, Indiana. The State Line Plant has a generating capacity of 200,000 K. W.

The plaintiff has a 66,000 volt line extending from Clinton, Indiana to Lafayette, Indiana and there connects with the line of the Northern Indiana Power Company and plaintiff delivers current to, and receives current from, said last named company at Lafayette, and also obtains some current from the Hydro Electric Company at Lafayette. Through this connection the capacity of the Twin Branch, State Line and Michigan City plants is made available to plaintiff and others connected with the Dresser Plant.

The 66,000 volt line from Clinton to Lafayette not only transports electrical current from Clinton to Lafayette, but it serves the towns along its line, including a sub-station at Cayuga, Covington, Veedersburg, Attica and Newton and also serves customers of plaintiff in said places. This line is economically advantageous in the operation of plaintiff's system.

The plaintiff has no generating plants of its own except at Clinton, Sullivan and Martinsville, Indiana. These [fol. 132] plants are not operated continuously, but when it is necessary during a time of maximum load on the system for the plaintiff to have additional power such plants are steamed up and put in service for system convenience and necessity, not, however, for the city in which they are geographically located. There are times when additional current is needed only for a short period of time, such as occurs in the Fall of the year when the lighting load comes on before the power load goes off and consequently the load pyramids, and in which event these individual generating plants can be operated to an economical advantage.

[fol. 133] X

The tangible property which plaintiff contends to be used and useful in serving Martinsville, consists, in a general way, of the three generating plants hereinbefore referred to, including land, buildings and equipment, having a total

available generating capacity of 4,650 K. V. A.: 350 miles of high voltage transmission lines: 135 miles of low voltage transmission lines: 52 high voltage substations: 39 low voltage substations: 61 distributing systems: 46 rural distribution systems and 16930 meters in service; see Exhibit No. 7, Page 1.

[fol. 134] XI

A large amount of testimony was introduced as to the value of all of the property of the plaintiff. Exhibits Nos. 2-A to 2-F, both inclusive, describe minutely and in great detail the various items of property of the plaintiff which the plaintiff contends is used and useful by it in serving current to Martinsville. These exhibits were prepared by Spooner & Merrill, Inc., consulting engineers, at the request of plaintiff. These several Exhibits correctly inventory all of the property of the plaintiff which it claims is used and useful in connection with its service to Martinsville, as of September 1, 1927, and then revised and brought down to May 1, 1930. These Exhibits are likewise an appraisal of all of said property by Spooner & Merrill, based upon costs of reproduction as of May 1, 1929.

Exhibit 2-A is a true and complete inventory of the generating property of the Wabash Valley Electric Co. as of September 1, 1927; it is also an appraisal of such property by Spooner & Merrill based upon reproduction costs as of May 1, 1929.

Exhibit 2-B is a true and complete inventory of the property of plaintiff making up its high voltage system as of September 1, 1927: it is also an appraisal of the same property by Spooner & Merrill based upon reproduction costs as of May 1, 1929.

Exhibit- No-. 2-C, 2-D, 2-E and 2-F are respectively true and complete lists of plaintiff's property going to make up part of the distribution system and additional property going to make up the additional part of the distribution [fol. 135] system, the property making up the low voltage system and the property included in the general office stores of the Wabash Valley Electric Company as of September 1, 1927, and an appraisal by Spooner & Merrill of the same property, based upon reproduction costs as of May 1, 1929. The appraisal in the several Exhibits does not include general overheads and intangible values of the property. Ex-

hibit No. 2-G is a Summary of plaintiff's property inventoried as of September 1, 1927, appraised with May 1, 1929 prices, deducts retirements and includes book additions to May 1, 1930. The foregoing Exhibits also contain some property owned by plaintiff which is not claimed by it to be used or useful in furnishing current to Martinsville, and is shown in Exhibit 2-G as being appraised and valued by Spooner & Merrill as $102,309.

Spooner & Merrill, in making their appraisal, divided the property into local property and power system property. They explained that power is handled, on a local distribution, ordinarily, at a voltage of around 2300, which is customarily referred to as primary voltage. It may vary in some instances and be 6600 volts, or, in some isolated instances, to be a secondary voltage of 110 volts. Many different cities are served by transmission lines which bring power to them, some of such lines being 66000 volts, some 33000 volts and some as low as 2300 volts. In making their allocation they considered that the municipality served was not concerned in the voltage or the manner of delivery to it, as long as the source of supply was adequate and the service rendered was sufficient. Such transmission lines are primarily constructed for the convenience of the company, [fol. 136] that is, if the company finds it necessary to transport a large amount of power long distances it will build a relatively high voltage line: high voltage lines are expensive: sub-stations stepping up to, and down from, high voltage involve large expenditures of money: for the convenience of the company power is transmitted by certain methods and by certain lines. A line may be built directly to a municipality from some other place, through intervening towns, or around another town and spur lines built to conduct electricity to such town, these matters being largely controlled by the topography of the territory served and the roads along which it is economical to build such lines: it is a matter of company management. The line drawn, therefore, by Spooner & Merrill between so-called power system and local electrical property is at the point where the power is delivered to any particular locality, regardless of the voltage or the character of transmission by which it is gotten there.

Mr. Schiez, Vice President of plaintiff and charged with the duty of accounting, prepared Exhibit 21, and the fol-

lowing figures taken therefrom correctly reflect the opinion of Spooner & Merrill as to the value of plaintiff's property as indicated in the following tabulation:

	New	Depreciated
Power system physical property as of Sept. 1, 1927	$2,684,365	$2,485,123
Net additions and betterments 9/1/27 to 12/31/28	94,499.16	94,499.16
	2,778,864.16	2,579,622.16
Land	6,975.00	6,975.00
	2,785,839.16	2,586,597.16
To this they add:		
Materials and Supplies		120,980.00
Fuel		5,000.00
Working Cash		117,807.00
Cost of Financing		111,693.00
Going value (15% of $2,792,814.16)		418,922.00
		$3,360,999.16

See page 5 of Exhibit 21.

[fol. 137]

Their appraisal of entire physical property is as follows: Sept. 1, 1927	$3,902,628.00	$3,567,219.00
Additions and Betterments: 9/1/27 to 12/31/28	313,638.59	313,638.59
	$4,216,266.59	$3,880,857.59
To which they add:		
Materials and Supplies		184,000.00
Fuel Stock		5,000.00
Working Cash		155,500.00
Cost of Financing		168,640.00
Going concern (15% of $4,216,266.59)		632,440.00
		$5,026,437.59

See page 6 of Exhibit 21.

Mr. Schiez also prepared Exhibit 22 and from which I set out the following tabulation as correctly reflecting the opinion of Spooner & Merrill as to the value of plaintiff's property:

Value of Power System Property, including additions and betterments to April 30, 1930.		
Physical Property, total	$3,088,093.00	$2,838,386.00
Add		
Materials and Supplies		90,000.00
Working Cash		127,352.00
Going Concern (15% of $3,095,281—Land $7,188 deducted)		464,292.00
Cost of financing		117,620.00
		$3,637,650.00

See page 10 of Exhibit 22.

Total value with additions and betterments to April 30, 1930. Local property, including:		
Martinsville	$1,699,078.00	$1,513,366.00
Power System	3,095,281.00	2,838,386.00
	$4,794,359.00	$4,351,752.00
Add to Depreciated:		
Materials and Supplies		140,000.00
Working Cash		163,000.00
Going Concern (15% of $4,794,359.00)		719,154.00
Cost of Financing		182,185.00
		$5,556,091.00

See page 12 of Exhibit 22 and page A of Exhibit 2-G.

Spooner & Merrill find the value of Martinsville local property to be as follows: (May 1, 1930 inventory with May 1, 1929 prices)

[fol. 138]

	New	Depreciated
Land, Structures and Equipment at Martinsville Plant for local Martinsville use only	$12,475	$10,936
Distribution System	95,865	85,193
General Equipment allocated to Martinsville Electric	5,412	4,530
	$113,752	$100,659
Material and Supplies		10,000
Working Cash		3,358
Going Concern Value		17,063
Cost of Financing		4,322
		$135,402

See Exhibit 2-H, page (A).

[fol. 139] XII

Exhibit No. 7 is a detailed appraisal of the Electric Property of the Wabash Valley Electric Company claimed by it to be used and useful in serving Martinsville, made by Stone & Webster Engineering Co., at the request of plaintiff, such appraisal expressing the opinion of said company as to the cost to reproduce all of said property, and its value new, less depreciation, as it existed April 30, 1930, based upon prices prevailing May 1, 1929. In the opinion of Stone & Webster Engineering Corporation, as shown by said Exhibit No. 7, these values would be as follows:

Cost to reproduce new	New less Depreciation
$5,935,138	$5,828,507

Their appraisal is predicated upon the detailed inventory of Spooner & Merrill, as the property existed on Sept.

1, 1927, adjusted to April 30, 1930, by the deduction of property retired during the intervening period, the addition of property acquired or constructed since the date of the original inventory, and the elimination of property not used or useful for electric purposes. The estimate of structural cost and the unit cost used in arriving at such estimate was prepared, in the first instance, by Spooner & Merrill, but reviewed by Stone & Webster to an extent sufficient, in their opinion, to enable them to form a judgment as to their propriety. They concluded that the unit prices of Spooner & Merrill were, as a whole, low enough to indicate the necessity for a reasonable allowance for general contingencies, and they included such an item. Their estimate as to Structural Cost is based on the assumption that it is intended to include all direct charges for material and [fol. 140] labor, together with such indirect charges as the company would be called upon to make to a general contractor. They assumed that the physical property of the company would be reproduced in its entirety by a general contractor operating under the supervision of the company's organization. They made an allowance for General Construction Costs, which included Engineering and Taxes, Administrative and Legal Expense, and Interest during construction: they allowed for Cost of Organization, Working Capital, Cost of Financing, Going Value and Depreciation. In my opinion their unit prices are too high and the amounts added thereto for General Construction Costs is unwarranted; their allowance for Organization, Working Capital, Cost of Financing, and Going Value, is believed to be exorbitant and unreasonable in each case, and I have, therefore, not adopted their opinion as to the value of plaintiff's property, either as to its cost to reproduce new, or new, less depreciation.

[fol. 141] XIII

The property which Spooner and Merrill treat as Martinsville Local Property and value at $135,402.00, is described in detail in Exhibit 2-H. Substantially the same property is contained in defendants' Exhibit 100, prepared by Hugh W. Abbett, Commission engineer, at the request of and for the defendants, except in Exhibit 2-H Spooner and Merrill allocated an amount of $1,169.00 to Morgantown transmission line, whereas, in Exhibit 100 this item is

included as being a part of Martinsville local; otherwise the two exhibits relate to substantially the same property. Exhibit 100 is a correct inventory of Martinsville local property as of May 1, 1930, and the unit prices therein are predicated upon prevailing current prices as of May 1, 1930.

The commission appraisal made by Mr. Abbett, exclusive of working capital and going value, is (New) $86,845, (Depreciated) $72,757. To this last figure Mr. Abbett added $2,968 for cash working capital and materials and supplies and $7,275 for going value, making a total appraised value (depreciated) of $83,000. This does not include any part of the generating plant at Martinsville. Spooner and Merrill added $10,936 to their appraisal of Martinsville local property as the allocable part of the generating plant which they thought should be treated as local property. Mr. Abbett thought the entire generating plant should be treated as power system property and, therefore, did not include any part of its value in his appraisal of Martinsville local property. If this item were added to Mr. Abbett's appraisal of the local property his appraisal would be $93,936.

See Exhibit 100, page B, and Exhibit 101.

[fol. 142] XIV

Martinsville Local Property as detailed in Exhibits 100 and 2-H, and also the Power System Property of plaintiff set out in Exhibit 103, do not contain any substantial structural work such as would or might ordinarily be let to a contractor engaged in such structural work, under competitive bidding, but consists largely of copper wire, poles of varying sizes and lengths, transformers, meters, crossarms, conductors and insulators, and would ordinarily be produced or set in place by company labor under suitable supervision.

The procurement and setting of poles is regarded by both plaintiff and defendants as an important item, and Spooner and Merrill and Abbett went into great detail in itemizing the various elements entering into the unit cost of this part of plaintiff's system. Thus, Mr. Abbett referred to page 1 of Exhibit 100 and took for illustration one of 35 poles therein listed as being 30 feet in length, 6

in top, N. Cedar, unit price, $12.33, and explained that the various matters which made up this unit price were as follows:

Price of pole F. O. B. woods or shipping point	$6.50
Freight to Martinsville	1.33
3% allowed for purchase and storage	.23
Unloading from car, inspecting and piling	.129
Roofing	.16
Loading and unloading	.201
Digging hole	1.838
Erecting, placing in hole and tamping dirt	1.893
Hauling one mile	.048
	$12.329

Gaining of the pole was allowed for by him in the matter of cross-arms.

[fol. 143] He further explained that the unloading, piling and inspecting included a crew set-up, consisting of a

Sub-foreman at 65¢ an hour, or	$5.85 per day	
Two ground men at 40¢ an hour, or	7.20 per day	for two
One truck driver at 50¢ an hour, or	4.50 per day	
4% allowed for insurance	.70	
3% for tool wear	.53	
One 2-ton truck at	9.00	
Total	$27.78	

In arriving at unit prices, Abbett made no percentage allowances on top of direct labor costs, except the 3% for tool wear and the 4% for insurance on labor. However, in addition to the foregoing, after applying unit costs to the items in the inventory and before reaching a grand total of the cost to reproduce the property new, he allowed an item for omissions and contingencies, an item for engineering costs which included architects and legal expense during construction, miscellaneous construction expenditures, taxes, interest and superintendence during construction, of approximately 15%.

Spooner and Merrill figured the cost of this same pole at $13.05. They allowed for original cost of pole F. O. B.

Point of delivery, pole and freight	$7.85
Unloading from car and storing	.25
Hauling from station to center of distribution	.26
Framing and roofing	.44
Digging hole	1.75
Erecting and setting pole, lining up and tamping dirt	1.37

They then allowed 5% on the cost of pole to cover purchasing, variations arising in inventory, breakage and wearing out of tools; a further allowance of 18% was made on labor costs, being a contingency for omissions, tool expense, supervision of labor, not including general engineering, and compensation insurance. While these respective percentages were applied to poles they were not similarly allowed by Spooner and Merrill on all items of property. [fol. 144] However, they prepared Exhibit No. 11, which explains in some detail their method of percentage additions to unit prices for labor and material, and some of the percentages allowed by them in this exhibit are as follows:

	Material percentages allowed	Labor percentages allowed
Poles	5	18
Street lighting, suspensions, overhead wires and cables, transformers	10	18
Pole steps, arresters, cutouts, pins, and brackets insulators, incandescent lamps	18	27
Steel towers	4	17
Anchors and guys, pole top switches, grounds, service	13	21
Cross-arms	11	19
Electric Meters	6	17

They explained that these percentages are added to take care of waste, loss and breakage, omissions, tool expense, direct supervision, injuries and damages, purchasing expense and stores and supply expense.

In the percentage allowed for "Waste", they include what they consider labor and material that is not in sight after the job is completed, such as wire ends and trimmings which are too small to be used again and are junk. They also include a certain amount for incompetent labor and unoccupied time on account of rainy weather.

[fol. 145] The allowance for "loss and breakage" is said by them to cover loss of material by theft, such as copper

wire, and the loss and breakage in connection with such items as glass and porcelain insulators, pins, cross-arms, etc.

Under the item of "omission" it is said by them that this should cover items not seen in inventory by the field inspector, and it is their contention that it is practically impossible to see and count the full amount of property in use by any large public utility, and that in the tabulation of so many items some omissions are claimed by them to be inevitable.

Under the percentage allowed for "tool expense", this is said by them to cover the cost of small hand-tools which are used up on the job and the cost of repairing and replacing stolen tools, breakage of tools and tools partially used up on the job.

Under the percentage allowance for "direct supervision" they include that part of the salaries of the heads of departments, field inspectors, office assistants, chief clerks, stenographers and clerks and also salaries of plant superintendent and clerks, general foreman and assistants and all other employees whose time is specifically charged to the job.

Under the percentage allowed for "injuries and damages" they include amounts paid to employees who are injured on construction work, hospital bills, ambulance and doctor fees paid by the company.

In the item of "purchasing expense", they include the salary paid to purchasing agent and clerks, rent, light, stationery, office supplies, traveling and miscellaneous expenses of the purchasing department.

[fol. 146] In the percentage allowed for "stores and supplies expense" they explain that this item covers the salary of the general storekeeper, the wages of laborers, store room assistants, stenographers and clerks, rent, light, heat, insurance, taxes, stationery, undistributed cartage and expresses, undistributed freight, etc.

They also include in the foregoing percentage allowance "contractor's profit" which they consider should be allowed where the services of a contractor are necessary on account of special type of work in which unusual equipment or working skill is involved. Where they consider the use of contractors they allowed a percentage for insurance on labor, payroll, property damage and public liability insur-

ance; contractor's bond, contractor's interest on deferred payments, field overhead or direct supervision, including such items as superintendent, timekeeper, watchman and field office expense. They also included a 10% item on material and labor as remuneration for the contractor and which contains some of the contractor's general expenses.

In addition to the foregoing percentage allowances as shown by Spooner and Merrill in their Exhibit No. 11, they allowed and added approximately 15% to the cost of reproduction new, less retirements, which they treat as general overhead costs as distinguished from structural costs; this is said by them to include such contingencies as acts of God, storm and weather conditions during construction, labor disturbances, unfor-seen difficulties in construction which they claim are not applied to unit costs, but are applied in a general overhead expense; this item also includes general [fol. 147] engineering which would take care of consultation and advice, supervision with plans and specifications on the work and also legal administrative and organization expenses, including an allowance for interest and taxes from the beginning of the work.

[fol. 148] XV

The difference in value of Martinsville local property as shown by Spooner and Merrill in Exhibit 2-H and that of Mr. Abbett as shown in Exhibit 100 and 101 is substantially accounted for as follows:

		Difference
Spooner and Merrill include the foregoing item of "land structures and equipment at Martinsville plant for local Martinsville use only", which item is excluded by Mr. Abbett, in the sum of		$10,936
Spooner and Merrill allowed for material and supplies	10,000	
Working cash	3,358	
Total	13,358	
Mr. Abbett allowed for the same items	2,968	
		10,390
Spooner and Merrill allowed for going concern value	17,063	
Mr. Abbett	7,275	
		9,788
Spooner and Merrill allow for cost of financing and for which no allowance is made by Abbet		4,322
Total		35,436

The remaining difference arises largely from a variation in the unit prices applied to reproduction of the tangible property inventoried, and the percentage of depreciation allowed.

[fol. 149] XVI

In defendants' Exhibit No. 103 will be found a correct inventory of property of the plaintiff regarded by the defendants as power system property. It was made up by Mr. Abbett, at the request of and for the defendant, Public Service Commission; it was originally made as of September 1, 1927, with the capital additions added subsequent to that time which brought it down to December 31, 1929, and which additions were taken by him from the books of the plaintiff company.

In the preparation of Exhibit 103, Mr. Abbett obtained from the Wabash Valley Electric Company a copy of the instructions which the company had issued to its Auditing Department for the charges which would go to make up power system of the Wabash Valley Electric Company, and he thereupon classified power system property in this exhibit on his interpretation of such instructions as were issued by the Company to its Auditing Department; in making up Exhibit 103, Abbett excluded all of the property of the plaintiff, including that at Martinsville, which he regarded as of purely local distribution character, and set out therein his opinion as to the cost of reproducing said property new, as of September 1, 1927, including overhead, but not including material and supplies, working cash or going value. He then added to this amount the net additions which were made from September 1, 1927, to and including December 31, 1929, which, after certain adjustments, he found to be $490,051.00; he then deducted $423,943 for depreciation, and concluded that the total power system value as of December 31, 1929, was $2,542,345.00 (See p. 1 of Exhibit 103). Mr. Abbett [fol. 150] then prepared Exhibit No. 104, from which it will be observed that he added to the above value an allowance of 4.08% for Cash Working Capital and material and supplies in the amount of $103,727.00, and the further sum of $222,294 for "going value", making total value of $2,868,366 for plaintiff's power system property, including the three local generating plants, Clinton, Martinsville and Sullivan,

as of December 31, 1929, (Exhibit 104); after making his deduction for said generating plants, the net value, in his opinion, of power system property as of December 31, 1929, was $2,535,932. He testified that in his opinion the property which he had thus appraised in Exhibit No. 103 was, in a general sense, used and useful in serving the people of Martinsville with electricity.

[fol. 151] XVII

Exhibit No. 26 is a partial reconciliation of the differences between the appraisal of power system property by Spooner & Merrill, and Abbett for the Public Service Commission, and the difference may be summed up in a general way as follows:

	P. S. C.	Spooner & Merrill	Difference
Generating Plants	364,313	424,282	59,969
High Voltage sub-stations	673,745	737,386	63,641
High Voltage transmission	1,337,308	1,409,227	71,919
Telegraph & Telephone	53,029	50,169	—2,860 (red)
Low Voltage sub-stations	13,406	37,674	24,268
Low Voltage transmission	100,544	178,499	77,955
Working cash & material & supplies	103,727	217,352	113,625
Going concern value	222,294	464,292	241,998
Cost of financing	None	117,620	117,620
			$768,135

[fol. 152] XVIII

As hereinbefore stated, the plaintiff has a distribution system which enables it to serve many different municipalities, industries and communities, which spread over many miles of territory, and none of which are connected or associated together in any manner, except as they are all served electrical power by the plaintiff. It has sub-stations transformers and purely local distribution facilities, similar to that at Martinsville, in many cities and towns, including Clinton, Greencastle, Jasonville, Roachdale, Spencer, Sullivan, and others in the several counties in Indiana heretofore indicated, and much of such local property, in my opinion, cannot be said to be either used or useful in the service to Martinsville. I have, therefore, set out herein and found the value of Martinsville local property, and also the maximum value of all of plaintiff's power system property which can be in any manner or to any extent said to be used or useful in serving Martinsville.

[fol. 153] XIX

I find the value of all of the local property, that is, property in Martinsville, Indiana, of the plaintiff that is actually used and useful for the convenience of the public in the service of electrical energy to Martinsville and its citizens, on May 1, 1930, to have been as follows:

	Cost of reproduction	Cost of reproduction depreciated
Poles, Towers & Fixtures	$20,670	$16,532
Overhead Conductors	12,928	11,636
Services	4,963	3,970
Line Transformers	13,920	11,832
Transformer Installation	1,879	1,597
Consumers Meters	14,977	12,713
Meter Installation	767	652
Office Equipment	2,699	2,159
Shop Equipment	515	412
Transportation Equipment	1,516	970
Laboratory Equipment	564	479
Total land, Plant and Equipment	$75,398	$62,952
to which should be added the following:		
General contingencies and general overhead	10,964	10,701
Structures and equipment at Martinsville plant for local Martinsville use only	12,475	10,936
Working cash	.....	3,358
Materials and Supplies	.....	6,500
Going concern value	.....	8,500
Total		$102,947

In explanation of the foregoing finding as to value, it will be observed that I have adopted the valuation of Engineer Abbett as to the value of land, plant and equipment, including his allowance for depreciation, and his opinion as to the present condition of the property. I am of the opinion that the percentages added by Spooner and Merrill to unit costs are too high and therefore unreasonable.

[fol. 154] On the other hand, it seems to me that the amount which Engineer Abbett allows for undistributed construction costs is too small. I have, therefore, adopted the allowance of Spooner and Merrill to cover these items.

The allowance which I have made for working cash is equivalent to approximately six weeks' operating expense. A company of this character must usually wait about six weeks before getting paid for the service it renders, and during this period it should have a reasonable amount of cash to take care of labor and operating expenses. I have adopted the allowance of $3,358.00 specified by Spooner and Merrill for this purpose, and believe it to be reasonable: the amount allowed by Abbett for materials and supplies is believed to be inadequate; but I also feel that the allowance of $10,000.00 for material and supplies and an additional sum of $3,358.00 for working cash, as provided by Spooner & Merrill, is unreasonable and unnecessary; the company must have a supply of poles, cross-arms, hardware, insulators, conductors, wire of different sizes, distributor transformers and other articles necessarily incident to its operation, and I find that $6,500.00 would be a reasonable allowance for "Materials and Supplies."

My allowance of $8,500.00 for "Going Concern Value" is believed to be just and reasonable. "Going Concern Value" is regarded as an added value of the plant as a whole over the sum of the value of its component parts of which it is composed, and proceeds upon the theory that the plant is constructed, equipped, and in active operation.

[fol. 155] The re-establishment of a property such as plaintiff has at Martinsville, and its Power System Property, would require considerable time, even after the physical or tangible items were assembled; mistakes of construction have to be corrected; substitutions have to be made; economics have to be studied; experiments are necessary which sometimes turn out to be useless; an organization has to be perfected; business must be solicited and advertised for; appliances must be sold and new devices demonstrated to induce the use of electrical current and educate the public up to the maximum point of consumption; in short, the company must expend time, labor and money to organize, develop, co-ordinate and place in operation the business which it had on February 1, 1929. On that date it did have an

established, developed and well organized business in connection with its tangible property at Martinsville, was efficiently managed, and in my opinion said property at Martinsville had a "Going Concern" value which should be considered as a part of its value for rate-making purposes in said sum of $8,500.00.

[fol. 156] XIX½

I find the value of the property described in Finding 19 as of the effective date of the order complained of, viz, Feb. 1, 1929, to be substantially the same as on May 1, 1930, to-wit, $102,947.

The evidence shows that in 1928 the Martinsville Local Property was thoroughly rehabilitated and in a substantial part rebuilt. Because of this the 1927 inventory could not be used by the engineers and a new inventory as of May 1, 1930 was made of this local property by joint effort of the engineers representing the two sides. Because of the 1928 rehabilitation work no material additions were made to Martinsville Local Property during the period from February 1, 1929 to May 1, 1930 and I find the fair value of that property as of February 1, 1929 to be substantially the same as on May 1, 1930.

[fol. 157] XX

I find that the 3% allowance for tools, 4% for insurance on labor, 3% to take care of purchase and storage of material, and the further allowance of 15% for omissions and contingencies is sufficient to take care of all matters referred to in Exhibit 11, in the reproduction of plaintiff's property.

The property of plaintiff should be differentiated from the reproduction of structural work of equal value, involving the erection of large or extensive buildings, where intricate plans, specifications and drawings would be necessary, and which would involve architectural skill and continuous supervision, and delays incident to labor situations, procurement of material and supplies from many different sources, weather conditions, etc.

The evidence shows that the biggest item in the local distribution system at Martinsville, and also in Power System property, is gotten together under the title of "poles,

towers and fixtures" and the labor of reproducing which would largely be performed by a crew or crews consisting of 3 laborers at 40¢ an hour and a truck and driver at $1.50 per hour and a line foreman at 60¢ per hour for the delivery of the poles to the place of erection; seven common laborers at 40¢ per hour for the digging of pole holes, one labor foreman supervising at 65¢ an hour and a truck and driver with the crew to handle tools and similar items at $1.30 per hour; for erecting, lining up the pole and tamping the dirt around it there would be one lineman in charge of the gang at $4.95 per day, 4 laborers at $3.60 a day, one laborer foreman at $5.85 per day, and one truck and driver at $11.70 per day. The setting of meters would be performed by a crew consisting of a second-class lineman at 50¢ per hour, [fol. 158] a meter setter at 50¢ per hour and a 40¢ helper. The placing of the wire in proper position would be done by similar crews. There is some ordinary building construction, but none of it is intricate or complicated, and it would be done by common laborers at 40¢ per hour. Rural construction and erection of high tension wires would be a little more expensive, but done by practically the same kind of crews.

[fol. 159] XXI

In fixing the value of Martinsville local property, I have included the item of $10,936.00 which the defendants contend is not properly allowable as a part of the value of Martinsville local. This property consists of a motor generator set used for furnishing direct current to the Martinsville distribution system; a motor generator set is a piece of equipment, one end of which is driven by alternating current and the other furnishes direct current. The power supplied at Martinsville is alternating current and in order to supply direct current for uses in sanitariums which are located at Martinsville, this particular distribution set is installed. It is used for the purpose of transferring the alternating current to direct current for certain customers in Martinsville. This item also includes certain switchboard panels which are used for purely local purposes in connection with the high voltage supply in Martinsville. These particular items making up this sum of $10,936.00

are all located in Martinsville, used exclusively for local Martinsville purposes, and in my opinion, are properly regarded as local property.

[fol. 160] XXI½

Mr. Abbett made an inventory and appraisal of plaintiff's power system property as of January 1, 1930. With minor exceptions this includes everything which Spooner & Merrill's allocation classifies as power system property. The property not so included consists of purely local distribution property which is not used or useful in bringing current to Martinsville for distribution over the local distribution system at Martinsville. In making this appraisal Mr. Abbett used a September 1, 1927, inventory with March 1, 1929 prices and added net capital additions from September 1, 1927 to December 31, 1929. This inventory includes the three generating plants in their entirety. In Summary, this appraisal, exclusive of working capital and going value, is as follows:

	New	Depreciated
Power system as of September 1, 1927	$2,476,237	$2,052,294
Adjusted net additions:		
September 1, 1927 to December 31, 1929		490,051
Total Power System as of Dec. 31, 1929		$2,542,345

See Exhibit 103, page 1.

To this Mr. Abbett added for:	
Working cash, and materials and supplies	103,727
Going value	222,294
Total	$2,868,366

See Exhibits 103 and 104.

[fol. 161] XXII

In my opinion, the property which is listed in defendants' Exhibit 103, plus additions to May 1, 1930, is all of the property of the plaintiff which can in any manner be classed and

considered as actually used and useful for the convenience of the public in the service of electrical energy to Martinsville and its citizens on May 1, 1930, except such as is in these findings treated and regarded as Martinsville local, referred to in Finding No. XIX herein, and I find the value of such power system property as of May 1, 1930 to be as follows:

	Cost of reproduction not depreciated	Cost of reproduction depreciated
Generating plants	$516,600	$309,388
High voltage stations	482,467	433,609
High voltage transmissions	986,309	892,877
Carrier current telephone	37,253	31,984
Low voltage sub-stations	14,289	11,423
Low voltage transmission	101,083	66,249
Total land, labor and equipment	$2,138,001	$1,765,530
to which should be added:		
Undistributed construction costs, 15%	320,700	264,800
	$2,458,701	$2,030,330
Capital additions, September 1, 1927 to May 1, 1930	539,065	539,065
to which should be added:		
Working cash		80,000
Fuel stock		5,000
Material and supplies		162,000
Going concern value		250,000
	$2,997,766.00	$3,066,395

[fol. 162] XXII½

I find the value of the property described in Finding XXII as of the effective date of the order complained of, viz: Feb. 1, 1929, to be substantially the same as on May 1, 1930, to-wit: $3,066,395, less net capital additions made thereto

between those dates. Plaintiff's Exhibit 26 discloses that capital additions to the power system property, less retirements, from Sept. 1, 1927, to April 30, 1930, total $539,065. Plaintiff's Exhibit 21 discloses that net capital additions to power system property from September 1, 1927 to December 31, 1928 (which is within one month of February 1, 1929) total $94,499.16. The difference in these totals represents additions from Jan. 1, 1929 to May 1, 1930, and is $444,565.84. There is no evidence showing whether any of such additions were made in the month of January, 1929. Subtracting from the May 1, 1930 value of $3,066,395 the additions made after January 1, 1929, in the sum of $444,-565, I find that the value of said power system property as of February 1, 1929, was $2,621,830.

[fol. 163] It will be noted that I have adopted the value of Engineer Abbett as to the value of the land, plant and equipment, including his allowance for depreciation, and his opinion as to the present condition of the property.

I have made an increase in his allowance for undistributed construction costs as I feel that the evidence justified a greater allowance than the one which he made. For the same reasons set forth in finding No. XIX relative to the value of Martinsville local property, I have increased the allowance which he made for working cash, materials and supplies and going concern value. In my opinion, the evidence amply warrants the increase which I have made and I believe the value of the power system property as I have found it herein is just and reasonable. My allowance for Materials and Supplies is the amount that was actually on hand on January 1, 1930.

[fol. 164] XXIII

I have adopted Abbett's Unit Prices, and his percentage of depreciation, because of his experience in former appraisals of similar property in the State of Indiana, his knowledge and familiarity with the property in question, and the method which he used to arrive at such unit prices and percentages of depreciation appears to me to be fair and equitable; he noted the various items on the inventory and obtained quotations for the several materials therein indicated; allowances were made by him for freight, material was given a loading of approximately 3% to take

care of storage and purchasing, labor rates were adjusted by him and slightly increased for Martinsville, common labor was figured at 40¢ an hour, linemen 65¢, truck drivers 50¢, meter setters 50¢, foreman 65¢ and sub-foreman 65¢; quotations were obtained from pole producing companies for the price of poles before they were set, and then application was made of the foregoing labor rates in installing such poles, price of copper in carload lots was obtained from a wire company engaged in selling such wire, the actual experience of the company was used as to transformers and meters, and in other instances the market price of material was taken as the standard. He assumed that the distribution system, transmission system and plant equipment would be built by company labor under company supervision, that structural work would be let by contract to men in the contracting business. He inspected the greater part of the property listed in Exhibit 100 and examined the records made by other engineers who had inspected the other portions of the property. His inspection was made for the purpose of inventoring the property and [fol. 165] for the further purpose of observing the condition thereof and expressing his judgment as to depreciation. He went over the property for inventory, took notes and made observations of the conditions thereof and placed thereon a certain percentage for the different parts of the property which would reflect, in his judgment, the present condition thereof. In so doing he took into account the wear and tear of the property and whether it came as a result of weather or other conditions. The age of the item of property under consideration was taken into account in so far as it would help his judgment in determining the present state or condition of the property and he also considered the probable useful life of the item of property under consideration. His percentage of usefulness of the various items of property are expressed in Exhibit 100 in the second to the last column under the head of "Percent Condition". For example, on pages 1, 2 and 3 he lists 486 poles at 90%, 175 at 60%, 137 at 45%, 31 at 40% and 87 at 65%. These same poles are listed by Spooner & Merrill on pages 2, 3 and 4 of Exhibit 2-H at 80%. Some of this property has been in existence longer than ten years and some of it has been installed within the last two or three

years and the division by Abbett into groups seems to be justified.

	Spooner & Merrill	Abbett
Anchors and guys are listed by	80%	80%
Cross-arms and hardware	80%	85%
Conductors	85%	90%
Insulators	100%	90%
Transformers	95%	85%
Meters	95%	85%

Other percentages are allowed by the respective engineers of about the same comparative difference.

[fol. 166] I am of the opinion, therefore, that the Unit Price adopted by Abbett and his allowance for depreciation are fair and reasonable.

[fol. 167] XXIII½

As hereinbefore found, the plaintiff has three generating plants, one at Martinsville, one at Sullivan and one at Clinton, which are not operated continuously, but which are in fact used as "stand by" plants for emergency service.

I find that the value of these three generating plants on February 1, 1929 was $309,388.00. It is contended by defendant that these generating plants are obsolete and should really not be considered in arriving at the value of plaintiff's property for rate-making purposes. However, in my opinion they are of value to the plaintiff and are used and useful in connection with the generating of electrical energy, and even though they are not operated at all times yet I find them to be used and useful to the public service.

These generating plants appear to me to be somewhat analogous to the reservoirs referred to by the Circuit Court of Appeals for the Third Circuit in the Board of Public Utility Commissioners vs. Elizabethtown, 43 Fed. (2nd) 478, wherein it was disclosed that the company had a small reservoir which had been built twenty years ago and that no water had been in it for three years. The company admitted this fact, but contended that the reservoir was in fact employed as a "balancing reservoir" and "overflow for the mains". The Circuit Court of Appeals upheld the contention of the company in this regard and disposed of the matter as follows:

"The Board contends that this small reservoir located on a tract of 67 acres of land was built twenty years ago and no water has been in it for three years. This the company admitted, but it contended that the reservoir is employed as a "balancing reservoir" and "overflow for the mains" and is reserved, and in that sense is used as a pressure safety valve to prevent bursting of the mains when the pressure reaches an excessive amount, the pressure being regulated once or twice a week. On this evidence, standing uncontradicted we cannot say that the reservoir and its connections are not used in the public service."

[fol. 168] I am, therefore, of the opinion that this property is used and useful by the plaintiff in connection with its system of generating and transmitting electrical energy.

XXIV

During the years of 1927, 1928 and 1929, the Wabash Valley Electric Company generated and purchased electrical current as follows:

1927

Plant	K.W.H. Generated
Clinton	77,120
Martinsville	17,030
Spencer	2,930
Sullivan	15,620
Total	112,700
Purchased	
Indiana Electric Corporation	57,684,897
T. H. I. & E. Traction Co.	29,972
Interstate Public Service Co.	188,100
Merchants Heat & Light Co.	110,780
Northern Indiana Power Co.	345,600
Illinois Power & Light Co.	15,000
	58,374,349
	112,700
Total	58,487,049

1928

Plant	K.W.H. Generated
Clinton	133,820
Martinsville	23,390
Spencer	7,370
Sullivan	13,100
	177,680

Purchased	K. W. H.
Indiana Electric Corporation	79,962,702
T. H. I. & E. Traction Co.	35,401
Interstate Public Service Co.	273,300
Illinois Power & Light Co.	4,400
	80,275,803
	177,680
Total	80,453,483

See page 65 of Exhibit No. 111 and Exhibit No. 16.

[fol. 169] 1929

Plant	K.W.H. Generated
Clinton	96,640
Martinsville	20,530
Spencer (has been abandoned)	....
Sullivan	6,300
	123,470

See page 1 of Exhibit No. 129.

Purchased	
Indiana Electric Corporation	83,781,646
Illinois Power & Light Co.	3,000
Interstate Public Service Co.	312,960
T. H. I. & E. Traction Co.	39,316
	84,136,922
	123,470
Total	84,260,392

See Exhibit 107 on page 35.

For the year ending May 31, 1930, the Wabash Valley Electric Company generated and purchased electrical current as follows:

Generated	K.W.H.
Clinton	57,920
Sullivan	6,300
Martinsville	13,725
Total	77,945
Purchased	
Interstate Public Service Co.	396,560
T. H. I. & E. Traction Co.	42,897
Indiana Electric Corporation	84,778,437
	85,217,894
Total	85,295,839

See Exhibit No. 17.

For the year ending May 31, 1930, the Wabash Valley Electric Company received from the Northern Indiana Power Company at Lafayette, Indiana, and transmitted over its Lafayette-Clinton transmission line, the total of 1,585,400 K. W. H. This total is itemized by months in Exhibit No. 15.

[fol. 170] XXV

In the years of 1927, 1928 and 1929, the plaintiff delivered electrical current to other companies as follows:

1927

For the year 1927, it made total net deliveries to other companies or consumers of 51,743,620 K. W. H. Of this total amount it made specific deliveries as follows:

Attica Electric Co.	4,862,590
Northern Indiana Power Co.	15,666,974
Indiana Electric Corp.	1,678,980
Illinois Power & Light Co.	12,600
Interstate Public Service Co.	3,000
Total	22,224,144

City of Martinsville	2,219,144

The remaining portion of said total was delivered to plaintiff's customers in its own territory and is shown in detail on pages 130 to 135 of Exhibit No. 111.

1928

For the year 1928, it made total net deliveries to other companies or consumers of 71,783,644 K. W. H. Of this total amount it made specific deliveries as follows:

Attica Electric Co.	5,795,720
Northern Indiana Power Co.	31,891,500
Indiana Electric Corp.	778,050
Total	38,465,270
City of Martinsville	2,426,344

The remaining portion of said total was delivered to plaintiff's customers in its own territory and is shown in detail on pages 136 to 141 of Exhibit No. 111.

1929

For the year 1929, it made total net deliveries to other companies or consumers of 75,611,628 K. W. H. Of this total amount it made specifie deliveries as follows:

[fol. 171] Attica Electric Co.	6,014,822
Northern Indiana Power Co.	30,239,200
Indiana Elec. Corp	1,364,942
Total	37,618,964
City of Martinsville	2,532,798

The remaining portion of said total was delivered to plaintiff's customers in its own territory and is shown in detail on pages 84 to 91 of Exhibit No. 107.

[fol. 172] XXVI

For the year ending July 31, 1927, the Wabash Valley Electric Co., handled a total of 51,457,770 K. W. H., of which 21,335,114 K. W. H. were delivered by it to the Northern

Indiana Power Co., and Attica Company, affiliated corporations.

In the year ending May 31, 1930, the corresponding figures are, total 76,373,914 K. W. H., of which 35,340,952 went to Northern Indiana Power Company and Attica Electric Co., and 41,032,962 were delivered to the Wabash Valley's own territory. (Exhibit 22, p. 13).

These deliveries by plaintiff to Northern Indiana Power Company and Attica Electric Co. are different from deliveries direct by it to customers in its own territory, in the following particulars:

1st. They are in enormously greater quantities than to other customers.

2nd. The current received by Wabash Valley at Clinton and delivered at Lafayette is received and delivered at the same voltage and there is, therefore, no transformation loss.

3rd. They are made upon an interchange arrangement, that is to say: the agreement between such companies was such that the Wabash Valley Electric Co. had the right to receive current from the Northern Indiana Power Co., at the same price that the Northern Indiana Power Co. paid the Wabash Valley therefor; since 1924 or 1925 has been buying current from the Indiana Electric Corporation and also transmitting current to said corporation; up until December, 1929, the Wabash Valley Electric Co. interchanged current with the Northern Indiana Power Co., and Attica Electric Company on the basis of a cent and a quarter per K. W. H., but since that date the interchange has been upon the basis of one cent per K. W. H.: this basic price is for bookkeeping purposes only; the current is metered before it leaves one company's property and goes to another and the meter readings are "washed out" and the whole transaction is merely a bookkeeping procedure.

4th. The current thus delivered to such companies is of sufficient quantity to substantially build up the load factor on the Dresser plant and thereby contributes materially to the maintenance and operation of that plant.

[fol. 173] XXVII

The electricity that is delivered by the plaintiff to the Northern Indiana Power Company at Lafayette is received

by plaintiff from the Indiana Electric Corporation at Clinton and transmitted by plaintiff over its 66,000 volt line from Clinton to Lafayette; it is received at sixty six thousand volts and is transmitted and delivered at the same voltage. In the transmission and transforming of electrical current there is a certain amount of "line loss", due to the fact that such current is transmitted by means of copper wires and copper is not a one hundred per cent conductor: it has a resistance and as the current passes through it, it loses part of its voltage. This shrinkage is recognized by plaintiff and in Exhibit No. 30 in its allocation of a portion of power system property value to Northern Indiana Power Co. and Attica Electric Co. for the year 1929, it corrects the amounts sold to these two companies for that year as follows:

"Energy sold to Northern Indiana Power Co.....	30,239,200 K.W.H.
Energy sold to Attica Electric Co.....	6,014,822 K.W.H.
Corrected for Line Loss:	
Northern Indiana Power Co. 2.1% Loss.....	30,887,844 K.W.H.
Attica Electric Company 8.75% Loss.....	6,591,585 K.W.H.

Also on page 13 of Exhibit No. 22 corrections are made for line losses on other parts of the system as follows:

	K.W.H. delivered	K.W.H. purchased and generated
"Wabash Valley Electric Company cities, towns, etc.—Clinton-LaFayette Line Corrected for 12.4% Line and Transformation Loss	3,780,800	4,315,982
[fol. 174] Other Wabash Valley Electric Company cities and towns, etc., Corrected for 16.135% Transformation Loss.....	37,252,164	44,418,952"

Said Exhibit (Pa. 13) concludes that the Percent of Distribution Loss to Martinsville is 14.48%. The usual average for transformation and line loss on a power system such as plaintiff operates, not including losses inside the gateways, is between ten and twelve per cent.

[fol. 175] XXVIII

The ascertainment of a fair apportionment of power system property value to Martinsville to be added to the fair value of the Martinsville local property in order to get a complete rate base for Martinsville is not free from difficulty.

Mr. Harry Wenger, Chief Engineer of the Commission, testified that he thought it fair to apportion power system property value to Martinsville on the basis of the ratio of actual sales of K. W. H. to Martinsville consumers to the total sales made by plaintiff in 1929. By using actual sales figures, line and transformation losses are accounted for. Exhibit 110, prepared by Mr. Wenger, shows the ratio so determined is 3.027%.

If the ratio is determined on the basis of sub-station output at Martinsville to Plaintiff's total sub-station output for 1929, the result is 3.34%. Sub-station output at Martinsville was 2,532,798 K. W. H. in 1929, and the total sub-station output was 75,811,628 K. W. H.. (Exhibit 107, page 45).

In 1928 actual sales at Martinsville were 2,082,286 K. W. H., and total sales were 68,936,497 K. W. H. For that year the ratio of sales at Martinsville to total sales is 3.02%. And, in 1928 the sub-station output at Martinsville was 2,426,344 K. W. H. and the total sub-station output was 71,783,644 K. W. H. On the sub-station output basis for 1928 the ratio is 3.38%.

[fol. 176] Mr. Abbett prepared Exhibit 106 in which he determined a ratio of 3.01% for this purpose on the basis of maximum consumer demand at Martinsville in 1929 to maximum consumer demand on plaintiff's entire system in the same year.

It will be noted that the percentages arrived at on the several foregoing bases are remarkably close to each other. I find that an apportionment of power system property value to Martinsville on the basis of 3.30% of the whole power system value is fair.

My find as to the fair value of the total power system property of plaintiff is $3,066,395. Applying to this amount the percentage of 3.30, the result is $101,191. I have found the fair value of the Martinsville local property to be $102,947. To this I add $101,191 as the fair portion of the fair value of the power system property which should be compensated by rates applicable to Martinsville consumption. I find that the total rate base upon which plaintiff is entitled to earn a fair return out of revenues derived from rates for service at Martinsville is $204,138.

[fol. 177] XXIX

The plaintiff urges that the whole of its property should be considered in establishing the rate base and that the test of the adequacy of rates is whether or not with a particular rate in effect an adequate return will be earned by plaintiff's entire electric business based upon the fair value of its entire electric property used and useful in its electric business as a whole.

In my opinion this contention is too broad and really loses sight of the statute which provides that ten complainants may make complaint against any public utility to the effect that its rates, tolls, charges or schedules are unreasonable or unjustly discriminatory and it shall thereupon become the duty of the Public Service Commission to have a hearing in relation to such rates, etc. and proceed to

"value all the property of every public utility actually used and useful for the convenience of the public * * * and shall give weight to the reasonable cost of bringing the property to its then state of efficiency."

It does not seem to me that where a municipality such as Martinsville is served by a utility having property of the value which I have found herein the plaintiff's property to be, and scattered over so much territory as has been set out herein, would require the Public Service Commission to value all of the property thus used by such utility in the service of one community or locality. I think it was rather the spirit of the statute and the intent of the Legislators that the Commission should only find the reasonable value of the property that was actually used and useful in the [fol. 178] service of each community and give due and proper consideration and weight to the bringing of such property to its then present state of usefulness, and that the petitioners in a case of that character should not be jeopardized by the possibility of having a rate established for their municipality which would insure a legal return to the utility on all of its property, regardless of how it is used or where it is located.

The defendants prepared their Exhibit 110 for the purpose of showing their theory of a proper allocation herein; they take the total of plaintiff's sales of 72,242,790 K. W. H. for the year 1929, and its sales at Martinsville for the same

period of time of 2,186,564 K. W. H., which gives a ratio of 3.027%; they then take their value of power system property, as shown on their Ehibit 104 of $2,535,932 and allocate $76,763 to Martinsville; or, including Power Generating Plants with the Power System Property, making a total of $2,868,366, and upon this basis allocate $86,825 to Martinsville, which, with the value of Martinsville Local as found by them to be $83,000, makes the total rate base, according to the defendants, of either $159,763, or, including the Power Plants, $169,825.

The plaintiff, not conceding that an allocation should be made, urges that if an allocation is made, it should not be upon the basis of total quantities of electricity sold or delivered by the plaintiff, and that it would not be fair to it to allocate upon a basis of total K. W. H. handled by it during any given period, because of its delivery of approximately 50% of its current to the Attica Electric Company and the Northern Indiana Power Company, and in making such deliveries it argues that much less than one-half of its Power System Property is used.

[fol. 179] XXX

I find that plaintiff is purely a distributing utility; it has no power to sell or exchange with any of its affiliated or associated companies; it is affiliated with the Attica Electric Company, the Colfax Electric Company, the Indiana Electric Corporation, the Northern Indiana Power Company, Moran Electric & Power Company and the Mulberry Light & Power Company, and with all of which said companies it has the interchange arrangement hereinbefore set out; it makes no charge to either of such affiliated or associated companies for current delivered to them, and current is delivered to each and all of such affiliated companies at the same rate the plaintiff pays therefor; up to December 1, 1929, plaintiff purchased all of its current at one cent per K. W. H. and exchanged such current with subsidiary companies on the basis of one cent and a quarter per K. W. H.; after December 1, 1929 it continued to buy its current at one cent per K. W. H. and its exchanges were made on the basis of one cent per K. W. H.; plaintiff sustained the line loss hereinbefore set out; it bore the whole expense of management, operation, maintenance and taxation and

made no charge against such associated or affiliated companies to in any manner compensate it for any of such items.

I have set out in finding No. IX herein that it is commercially expedient and economically sound for companies furnishing electrical current to make such inter-connecting arrangements and obtain such current from large producing plants and distribute it to the ultimate consumers; while this is true, I do think that such an arrangement should be carried on to the extent of prejudicing the rights [fol. 180] of the ultimate consumer, or making any one or more of such consumers carry more than a just and fair proportionate share of the operating expense of the utility thus making such distribution. The inter-connecting arrangement seems to be ideal for the purpose of meeting competition and should enable the utility to furnish current with more regularity and greater continuity than service from purely local or isolated plants, but I do not believe that the plaintiff should enter into such inter-connecting arrangements with affiliated companies and thus and thereby be permitted to build up a system which enables it to virtually stifle competition, by supplying its equipment and rendering service to its allied or associated companies without receiving from them just compensation, or a reasonable remuneration for such equipment and service, and at the same time charge the expense of the operation of thus serving such inter-connecting companies to other consumers. It seems to me that this is the inevitable result of plaintiff's contention, and I am, therefore, of the opinion that the electrical current which was furnished by the plaintiff to the Indiana Electric and other affiliated companies should not be eliminated in arriving at the rate base in this case. In other words, and in my opinion, the plaintiff has not shown by any evidence herein how the deliveries of current by it to such other affiliated companies can be fairly or properly eliminated from consideration herein and I find that if an allocation of plaintiff's power system property is to be made and charged to Martinsville in connection with the establishment of a proper rate base herein, the amount thereof should not exceed $101,191.00.

[fol. 181] XXX½

The evidence shows, and I find, that if power purchased by plaintiff and delivered by it over its transmission sys-

tem to its affiliated companies such as Northern Indiana Power Company and Attica Electric Company were charged to those companies at the gateway rate found by the Commission for Martinsville, and such companies were required to pay said rate, then such affiliated companies would cease taking such power because they can get it cheaper from power sources in the Northern part of the State, in which event, the only use made of plaintiff's power system property would be to transmit current to its own customers within its own territory.

I find, however, from the evidence, that plaintiff's power system property was largely planned and constructed under the common management of the affiliated system as a part of the general plan of the affiliated system and with a view to delivering electricity from the Dresser plant of the Indiana Electric Company, to affiliated companies, and receiving current from such companies, as well as serving plaintiff's own customers in its own territory through which said line runs, as more particularly set out in Finding No. 25 herein.

I also find that plaintiff's power system property as so planned and constructed represents an appreciably higher investment and operating expense than if it had been planned and constructed under an independent management of plaintiff for its exclusive needs, and by reason thereof I find that it is not fair to plaintiff's customers at Martinsville, and to its other customers within its own territory, to require them to pay rates sufficient to pay all operating expenses, depreciation and return on plaintiff's power system property as the same exists and is being used. I, therefore, rejected the allocation suggested by plaintiff in its Exhibit 28 as not being a fair division or proper allocation of plaintiff's power system property as a whole as to use for plaintiff's own customers and as to use for its affiliated companies.

[fol. 182] XXXI

Page 27 of Exhibit 107 shows that according to the books of plaintiff company the total operating revenues for Martinsville during the year 1929 were $99,550.91

The same exhibit shows the total operating expenses at Martinsville, excluding depreciation, to have been	65,921.87
Leaving net operating revenues before depreciation of	33,629.04
It is conceded by plaintiff that of the above amount charged on its books to Martinsville as an operating expense, the sum of $3,384.80 was in fact improperly charged to Martinsville and should really be charged to Power System Cost, and instead of said sum of $3,384.80 being all charged as an operating cost to Martinsville, I have allocated $118.50 to operating expenses at Martinsville, which will, therefore, increase the net income to Martinsville in the sum of	3,266.30
or a total net income to Martinsville, before depreciation of	36,895.34

Plaintiff shows by its Exhibit 10 that if the rates actually prescribed by the Public Service Commission had been in force for the year beginning May 31, 1929, and ending May 31, 1930, there would have been a reduction of its income at Martinsville in the sum of $15,901.70.

But the plaintiff company, in the keeping of its records [fol. 182a] showing the operating expenses chargeable to Martinsville for the year 1929, is shown on page 30 of Exhibit 107, to have charged Martinsville the sum of $5,180.65 for "Regulatory Commission Expenses", this item being a 1/10 of a total rate case expense of $50,000.00, and in Exhibit 28 this item is carried by plaintiff at $6,235.98.

I find that these amounts are exorbitant and that it is unreasonable to charge Martinsville with rate expenses to the extent of $50,000.00 and that the charge of the company on its books of $5,180.65 in Exhibit 107, and the corresponding charge of $6,235.98 in Exhibit 28 for rate expense and as an operating expense for the year 1929 to the City of Martinsville is unreasonably high. It seems to me that if a municipality of the size of Martinsville is to be charged an expense of this magnitude in a rate case, it

would virtually prohibit the filing of petitions for rate revision by patrons of a utility and would prevent such patrons from resisting such petitions when filed by the utility itself, thus nullifying the law relating to rate regulation.

The Commission ordered that the Rate Case Expense charged to Martinsville should be amortized over a period of ten years, charged as an Operating Expense against the revenues from service at Martinsville, and should not exceed $400.00 per year. No evidence was offered in this case directly on the proposition as to whether the allowance by the Commission was reasonable or unreasonable. There [fol. 183] is evidence in the record from the witness Mr. Schiesz to the effect that all of the expense charged upon the books of the company to this case was expense incurred directly in connection with this rate case and used only in defense of the petition. The plaintiff contends that there is no evidence in the record to dispute the testimony of Mr. Schiesz in this regard and that there is likewise no evidence that any expense incurred by the company and charged as an operating expense to Martinsville was unreasonable and that there is no evidence upon which a claim of an abuse of discretion upon the part of the managers of the company in the amount of expense incurred in the defense of this case could be predicated.

In this connection defendants call attention to Chapter 146 of the Acts of the Legislature of Indiana of 1927, Acts 1927, page 445, which provides as follows:

"The commission shall inquire into the management of the business of all public utilities, and shall keep itself informed as to the manner and method in which the same is conducted and shall have the right to obtain from any public utility all necessary information to enable the commission to perform its duties. If, in its inquiry into the management of any public utility, the commission finds that the amount paid for the services of its officers, employes, or any of them, is excessive, or that the number of officers or persons employed by such utility is not justified by the actual needs of the utility, or that any other item of expense is being incurred by the utility which is either unnecessary or excessive, the commission shall designate such item or items, and such item or items so designated, or

such parts thereof as the commission may deem unnecessary or excessive, shall not be taken into consideration in determining and fixing the rates which such utility is permitted to charge for the service which it renders."

[fol. 184] It seems to me that under the foregoing Act of the Legislature the Public Service Commission does in fact have a duty to perform in connection with determining whether expenses incurred by a utility in rate cases is reasonable or otherwise, and I do not believe the decision or finding of the Commission in this regard should be disturbed unless there is sufficient evidence to show clearly that it has comm-tted a substantial error.

The plaintiff further contends that this is a matter which should be reposed in the sound judgment of the management of the utility, but I am not willing to concede such to be the law.

In my opinion the evidence is not sufficient to justify a finding that the Public Service Commission has made any substantial error in its allowance for rate expense, and I, therefore, approve of the action of the Commission in this regard and conclude that the rate expenses charged to Martinsville should be amortized over a period of ten years, charged as an operating expense against the revenues from service at Martinsville, but should not exceed $400.00 per year.

[fols. 185-188] XXXII

I understand that the parties hereto virtually agree that 4% is a reasonable allowance for depreciation; a difference arises, however, between them as to what the 4% should be applied to. Plaintiff contends that the 4% depreciation should be applied to the reproduction new value of the tangible property, except land, at the effective date of the order. Defendants urge that this percentage of depreciation should be based upon "present value" which they argue is reproduction cost less existing depreciation.

[fol. 189] It seems to me, therefore, that the amount to be allowed the plaintiff for depreciation should be based upon the value of plaintiff's property at or about the time the order in question was to become effective, and that this allowance should not be based on original cost, but should

rather be applied to the "present value", giving consideration to the cost to reproduce new, less a reasonable amount for depreciation, and which allowance, in my opinion, should be 4% of the reasonable value of the depreciable property at or about the time the rates in question were to become effective.

[fol. 190] XXXIII

My allowance for annual depreciation is as follows:

Tangible Martinsville Local, 4% of $84,589.00 or	$3,383.56
and 4% of amount allocated from Power System Property to Martinsville.	
In figuring value of Power System property to be allocated to Martinsville, I have taken total value of Power System Property to be $3,066,395, but in this amount is $497,000.00 included for working cash, fuel, material and supplies and going concern value, and which, when deducted, leaves a balance of $2,569,395, and 3.30% of this amount gives $84,790 as the proper basis for computing the allowance for depreciation on Power System Property, or	3,391.60
Total annual depreciation requirement	$6,775.16

[fol. 191] XXXIV

Working Capital

I have made an allowance for working capital. I understand this to be a proper item, and attention is directed to Vincennes Water Supply Company vs. Public Service Commission of Indiana, 34 Fed. (2nd) 5, where the Circuit Court of Appeals for the Seventh Circuit makes use of the following language:

"There can be no question as to the necessity of working capital in the management of any enterprise. It furnishes the means by which business is transacted. It meets the pay roll and the current bills for materials and other running expenses. A capital fund for these purposes present from day to day in amounts adequate for the reason-

able needs of the company, must be supplied. It should be an amount such as reasonable business men, experienced, would require in the conduct of this kind of business, and we find in various cases allowances of from 3 to 8% for that amount."

The amount of $3,358.00 which I have recommended in this case is the amount specified by Spooner and Merrill, and it seems to me to be a reasonable allowance for a utility of the character of plaintiff and engaged in the business of furnishing electrical energy.

[fols. 192-194] XXXV

Cost of Financing

The Circuit Court of Appeals for the Seventh Circuit in the case of Vincennes Water Supply Co. vs. Public Service Commission, 34 Fed. (2nd) 5, seems to hold that there should be no allowance for any expense in financing a utility of this character, if no such expense has been incurred. Attention is directed to Paragraph Ten on page 9 of said opinion, which is as follows:

"Appellant contends there should be included in the valuation, an item of $65,000.00 for cost of financing and, while there may be circumstances under which consideration of such an item is proper, there is no fact in this record that would establish the propriety of such inclusion. It has not been shown that there has been any expense in the financing, and if there has been none, none should be included."

I have not made any allowance herein for the cost of financing, for the reason that the evidence does not show that any such expense has been incurred, or that it would be necessary to incur any such expense.

[fol. 195] XXXVI

Rate of Return

[fol. 196] The evidence shows that the business which the plaintiff is engaged in has been established for some time and although competition is rather keen, yet there is no

evidence that tends to show that its business is surrounded by any unusual hazard; its business is shown by the evidence to be gradually increasing from year to year; the supply of electrical energy is without question bound to continue to be a common necessity; in my opinion a return of 7% would be a fair and reasonable allowance to the plaintiff in this action.

[fol. 197] XXXVII

In Exhibit No. 22, prepared by plaintiff, it is shown that the gross revenue of plaintiff at Martinsville for the year ending May 31, 1930, was $97,770.42, which, less the reduction which is sustained under the rate prescribed by Public Service Commission Order No. 8894 of $15,901.70, leaves a revenue under the order complained of for the year ending May 31, 1930, of $81,868.72, according to plaintiff's Exhibit.

In defendants' Exhibit 107 at pages 76 to 83, it is shown that the operating revenue under the rates prescribed by the Commission under its order No. 8894, for the month of January would have been $6,783.19. And in defendants' Exhibit 113 it is shown that the operating revenues for the other eleven months of 1929 under said prescribed rates would have been $77,966.94. By said two exhibits it is shown that the total operating revenues for the full calendar year of 1929 under said prescribed rates would have been $84,750.13.

[fol. 198] XXXVIII

The rates complained of, when applied to the consumer data for the twelve months of 1929, show an operating revenue in the amount of $84,750.13. These rates are lower than the rates actually in force during that year. I find that the rates complained of would have yielded an operating revenue of not less than $84,750.13 in 1929.

XXXVIII½

I find that the rates complained of herein would have yielded a gross operating revenue for Martinsville for the year ending May 31, 1930, not less than the sum of $81,868.72.

[fol. 199] XXXIX

On page 1-A of Exhibit 28 plaintiff shows gross revenue for Martinsville for the year ending May 31, 1930, to have been $97,770.42.

It charged as an operating expense for the same period of time an item of "Power Cost—2,528,511 K. W. H. @ $.022897—$57,895.32."

It also charged against Martinsville for "Regulatory Commission Expense" the sum of $6,235.98.

I have expressed my opinion in Finding No. 31 as to this last item and I deem it unnecessary to add anything thereto, except to say that I think only $400.00 should be charged for this purpose and which would decrease operating expenses for Martinsville in the year 1929 to the extent of $5,835.98.

As to the item of Power Cost; I can find no good reason and no evidence in the record to justify the charge of $.022897 per K. W. H. to Martinsville. During the year 1929, the plaintiff could, and in fact did, purchase all of the electrical current it used, except 123,470 K. W. H., at $.01 per K. W. H., and the price which it thus paid was in fact a reasonable and fair price for the interchange of current between interconnected companies.

However, the fact that plaintiff could purchase current at these prices does not mean that it would deliver it to Martinsville at that same rate: in Finding No. IX, I have shown some of the advantages to be obtained by the interchange system which is made available to Martinsville on account of [fol. 200] plaintiff's interconnections: in addition thereto, as hereinbefore shown, approximately 50% of the K. W. H. delivered by plaintiff over its transmission lines goes to gravel pits, coal mines and other industries that make extensive use of machinery in the day time, which would otherwise be idle if it was kept only for lighting purposes at night, and by thus combining the business of furnishing electrical current to municipalities for lighting and other purposes at night with industries that use large quantities of current in the day time, it is possible to reduce the cost of such current; owing to the fact that the load factor outside of municipalities is better than in such municipalities, it is quite probable that the cost per K. W. H. is more to a city like Martinsville than to an industry using propor-

tionately the same amount of current outside of such city. In a system as intricate as that conducted by the plaintiff, it is very difficult to arrive at a proper cost per K. W. H. for electrical current delivered to any segregated municipality or industry.

Exhibit No. 107 is a report of an examination of the records of the Wabash Valley Electric Company for the period beginning January 1, 1929, and extending to December 31, 1929, prepared by the accounting department of the Public Service Commission: with the exception of "Consumer's Data", it was prepared in the offices of the plaintiff company and reflects a true report of the records and books of the plaintiff pertaining to the Martinsville area for the above period of time.

[fol. 201] Exhibit No. 28 was prepared by the plaintiff itself showing operating balance for the entire company for the year ending May 31, 1930, giving effect to rates ordered by the Public Service Commission under Order No. 8894 to consumption by customers in Martinsville, Clinton, Greencastle, Jasonville and Sullivan.

On page 27 of Exhibit 107 it is disclosed that the company, in apportioning power cost to Martinsville for the year 1929, charged Martinsville for power for that year the sum of $32,800.82, or approximately $.013 per K. W. H.

[fol. 202] In Exhibit 28 plaintiff charges Martinsville with 2,528,511 K. W. H. at $.022897 per K. W. H., or a total of $57,895.32.

In arriving at the cost per K. W. H. of $.022897 in Exhibit 28, plaintiff, on page 6 takes the entire Power System Operating Expense of $1,018,710.58 and deducts therefrom operating expenses and taxes on property which it allocates to the use of the Northern Indiana Power Company and the Attica Electric Comany in the amount of $393,855.94, leaving what it shows in said Exhibit as a net operating expense to Power System Property of $624,854.64. It then figures a depreciation of 4% on $2,328,951.00, or $93,158.04 and allows itself an 8% return on $2,731,671, or $218,553.68, and adding the depreciation allowance and allowance for return to the net operating expenses gives a total cost of Energy at Gateway of Wabash Valley Electric Company's cities and towns of $936,546.36. It then takes the total current generated and purchased, as shown by the period of time

covered by Exhibit 28 of 76,373,914 K. W. H. and deducts therefrom the amount of 35,340,952 K. W. H., which was delivered to the Northern Indiana Power Company and the Attica Electric Company and which leaves it a balance of 41,032,962 K. W. H., which it claims in its Exhibit 28 was delivered at gateway of cities and towns served by the plaintiff, as distinguished from the power delivered to Northern Indiana Power Company and Attica Electric Company. It therefore concludes that it cost $936,546.36 to deliver 41,032,962 K. W. H. to the various gateways of its own system, eliminates the deliveries to Northern Indiana Power Company and Attica Electric Company, and thus arrives at its figures of $.022897 per K. W. H.

[fol. 203] In carrying out this method and in arriving at the proper depreciation and rate base, it likewise allocated to said Northern Indiana Power Company and Attica Electric Company approximately 31.9% of the physical property, or the sum of $905,979, which amount, deducted from what it figured was the total value of Power System Property, viz, $3,637.650, left the balance of $2,731,671, which it adopted as the basis upon which it was entitled to a return of 8%.

The Public Service Commission figured the cost per K. W. H. at Martinsville to be .0172: it apparently arrived at this figure by a computation based upon the total K. W. H. purchased and generated during the year ending July 31, 1927 of 57,549,193, out of which plaintiff actually sold 51,457,770 K. W. H. at a cost, including power cost, operating expenses and taxes, of $719,175.91, or a unit cost of $.0139 plus per K. W. H. actually sold: to which it added $.0033 per K. W. H., considered by it to be a fair return on the property used and useful to generate such current and deliver it to Martinsville.

The defendants contend that the only correct method of arriving at a proper "gateway" charge to Martinsville is to include all electrical energy delivered by plaintiff to all gateways, including that delivered to the Attica Electric and the Northern Indiana Power Companies: they urge that these latter deliveries must enter into the computation for the reason that the use of plaintiff's system to make such deliveries is not compensated for in any reciprocal benefit derived by plaintiff from such companies.

[fol. 204] XL

Allocation Method Applied to 1929

If the method of allocating a part of plaintiff's power system property to Martinsville is adopted, and the calendar year of 1929 is used as the basis for testing the reasonableness of the rates complained of, I find that if these rates had been in effect during that year they would have yielded a fair rate of return on the fair value of plaintiff's property used and useful in giving the service to which the rates apply.

As to operating revenues, operating expenses, depreciation and balance available for return I recapitulate and find as follows:

Operating revenues		$84,750.13
Operating expenses:		
Power—2,532,798 K. W. H. @ $.0133, as carried on books of pany	$33,726.33	
Used by other departments of company	925.51	
Total power expense	$32,800.82	
Distribution	5,111.28	
Consumption	1,475.80	
Commercial	2,671.10	
New Business	3,038.92	
General & Miscellaneous	9,731.27	
Taxes	2,527.23	
Rate expense	400.00	
Appliance sales—loss	503.56	
Total	$58,259.98	
[fol. 205] Total	$58,259.98	
Less indirect charges to construction.	2,784.60	
Total of above expenses	$55,475.38	
Gross income (before depreciation)		$29,274.75

Depreciation on tangible property:

(a) 4% on $84,589—Martinsville local		**$3,383.56**
(b) 4% on $84,790 allocable part of power system property		**3,391.60**
		$6,775.16
Leaving net for return		**$22,499.59**

which provides a return in excess of 7% on the fair value of $204,138 which I have found for Martinsville local plus the allocable part of the power system property, and would make a return of 11+% on that value.

[fol. 206] XLI

Allocation Method Applied to Year Ending May 31, 1930

I find that if the rates complained of had been in effect during the twelve month period ending May 31, 1930, they would, according to plaintiff's estimate in Exhibit 28, have yielded a gross revenue of $81,868.72. I make a recapitulation and finding on that basis for that period as follows:

Income under rates prescribed		$81,868.72
	Expenses	
Power—2,528,511 K. W. H. @ $.0133, as		
Carried on Company books	$33,629.20	
Distribution	5,607.82	
Utilization	1,499.58	
Commercial	2,255.72	
New Business	2,590.39	
General & Miscellaneous	10,432.88	
Uncollectible accounts	578.06	
Taxes	2,579.98	
Rate Expense	400.00	
	$59,573.63	
Indirect charges to construction Credit	4,920.25	
Balance	$54,653.38	

Depreciation on Martinsville local, 4% on $84,589	3,383.56	
Depreciation on Power System Property allocated to Martinsville, 4% on $84,790	3,391.60	
	$61,428.54	
Leaving for return		$20,440.18

[fol. 207] and which is in excess of 7% on $204,138. This balance would make a return of 10+% on the combined value ($204,138) of the Martinsville local and the allocable part of the power system property.

[fol. 208] XLII

Gateway Method Applied to 1929, Using Gateway Rate $.01718

Defendants introduced Exhibit 108, prepared by Mr. Harry Wenger, Chief Engineer of the Commission, to show what would have been a fair gateway rate at Martinsville for 1929. The rate shown by that exhibit is 1.699 cents per K. W. H. In arriving at that rate the value of the power system property was taken at $2,868.366. A revision of Exhibit 108 by substitution of power system value hereinbefore found by me results in the following:

Total power system expense as shown by the company's books (See exhibit 107, page 36.)	$1,000,551.54	
Add substation cost charged direct to Martinsville distribution	3,384.80	
	$1,003,936.34	
Deduct—Portion of indirect charges to construction	18,242.68	
	$985,693.66	
Depreciation, 4% on $2,569,395 (Finding No. XXXIII)	102,775.80	
Return, 7% on $3,066,395	214,647.65	
Total of above items		$1,303,117.11

Total substation output at "Gate-way", 75,811,628 K. W. H.

Cost per K. W. H. on this basis (depreciation and return included) is $1,303,117.11 ÷ 75,811,628) 1.718 cents or $.01718).

[fol. 209] The Martinsville local operating expenses for 1929 exclusive of the item of power cost totalled $22,674.54 (See Finding No. XL). If to this is added $3,383.56 for annual depreciation and 7% on $102,947 (value of Martinsville local property) the total is $23,264.41. Subtracting this amount from the operating revenues the rates would yield in the sum of $84,570.13, there would be left $51,305.72 available for cost of power at the Martinsville gateway. Dividing this available sum by 2,532.798 Kw. H. (the amount of current delivered at the Martinsville gateway in 1929), the result is 2.021 cents or $.02021 per Kw. H. which could have been paid for power at the Martinsville gateway in 1929 and still have enough left out of the revenues these rates would have yielded to pay all operating expenses, 4% depreciation and a 7% return on $102,947.

If the power delivered at the Martinville gateway were computed at the rate of .01718 hereinbefore calculated, the power cost for 1929 would have been $43,513.46. If to this cost are added the other local operating expenses and depreciation the total operating expenses after depreciation would be $69,571.58, leaving $14,998.55 of the $84,520.13 the rates would yield available for return. This would make a return of 14+% on $102,947.

[fol. 210] XLIII

Gateway Method Applied to Year Ending May 31, 1930, Using Gateway Rate $.01718

If the Gateway method is used for the twelve month period ending May 31, 1930, and power is computed at a gateway rate of $.01718 per Kw. H., I recapitulate and find as follows:

Gross revenue under rates prescribed by Public Service Commission $81,868.72

Expenses

Power—2,528,511 Kw. H. @ $.01718	$43,465.10	
Distribution	5,607.82	
Utilization	1,499.58	
Commercial	2,255.72	
New Business	2,590.39	
General & Miscellaneous	10,432.88	
Uncollectable Acc'ts	578.00	
Taxes	2,579.98	
Rate Expense	400.00	
Total	$69,409.47	
Indirect charges to construction credit	4,920.25	
	$64,489.22	
Depreciation for Martinsville local	3,383.56	
Total Expense		$67,872.78
Leaving a balance for return of		$13,995.94

and which is in excess of 7% on what I have hereinbefore found was the fair value ($102,947) of Martinsville local property. That balance on that value would make a return of 13+%.

[fol. 211] XLIV

In 1927 the average cost per Kw. H. actually sold by plaintiff to Martinsville, (sub-station input) as shown by its own books, was (Ex. 111-67) ..... $.0147
In 1928 it was (Ex. 111-67) ..... .0134
In 1929 it was (Ex. 107-47) ..... .0133

Total ..... .0414
or an average of ..... .0138

In arriving at the above figures the company took the total sub-station readings for each month and deducted therefrom current purchased direct, which gave the net power system input; it then took the total Martinsville readings for each month and obtained the percentage of Martinsville readings to the total sub-station readings; it then figured total power cost, which included power pur-

chased, steam power generation, transmission expenses, sub-station expenses, general expenses and taxes, deducted direct purchases and thus arrived at the net apportionable power costs for the whole system. It then applied the percentage of current delivered to Martinsville to the net apportionable power cost, which gave it the proper apportionable power costs to Martinsville.

However, in the above figures nothing is included to take care of depreciation and return: proper allowance should be made for these: I have found and allowed for a depreciation of 4% on $2,569,395, or $102,775.80
and provided for a 7% return on $3,066,395, or 214,647.65

Total $317,423.45

The cost per Kw. H. to produce and provide for such 4% depreciation and 7% return, based on 75,811,628 Kw. H. [fol. 212] for the year 1929, would be $.0042—, which, added to the above average for the three years of 1927, 1928 and 1929, would make $.018 per Kw. H. at Martinsville, and which amount I find to be a fair and adequate gateway rate for Martinsville.

XLV

Gateway Method Applied for 1929, Using $.018 per Kw. H.

If the Gateway Method and the calendar year of 1929 are used as the basis of computation of the proper rate of return herein, I recapitulate and find as follows:

Gross Income Under Rates Prescribed by Commission for year 1929 ..... $84,750.13

Expenses

Power—2,532.790 Kw. H. @ $.018	$45,590.21
Distribution	5,111.28
Consumption	1,475.80
Commercial	2,671.10
New Business	3,038.92
General and Miscellaneous (less rate case expense)	9,731.27
Taxes	2,527.23
Rate Expense	400.00
Appliance Sales—Loss	503.56
Total	$71,049.37

Indirect charge to Construction Credit	2,784.60	
	$68,264.77	
Depreciation for Martinsville Local	3,383.56	
Total	$71,648.33	71,648.33
Leaving a balance for return of		$13,101.80

and which amount is in excess of 7% of what I have hereinbefore found ($102,947) is the fair value of Martinsville Local Property.

[fol. 213] XLVI

Gateway Method Applied for Year Ending May 31, 1930, Using $.018 per Kw. H.

If the Gateway Method and the year ending May 31, 1930, are used as the basis for computation herein, I recapitulate and find as follows:

Gross Income Under Rates Prescribed by Public Service Commission		$81,868.72
Expenses		
Power—2,528,511 Kw. H. @ $.018	$45,513.20	
Distribution	5,607.82	
Utilization	1,499.58	
Commercial	2,255.72	
New Business	2,590.39	
General & Miscellaneous	10,432.88	
Uncollectible Accounts	578.06	
Taxes	2,579.98	
Rate Expense	400.00	
Total	$71,457.63	
Indirect charges to Construction—Credit	4,920.25	
	$66,537.38	
Depreciation for Martinsville Local	3,383.56	
	$69,920.94	69,920.94
Leaving a balance for return of		$11,967.78

and which amount is in excess of 7% return on what I have hereinbefore found ($102,947) to be the fair value of Martinsville Local Property.

[fol. 214] XLVII

The only evidence as to value of plaintiff's electric property as a whole was offered by the plaintiff. Spooner & Merrill, by their inventory and appraisement, testified that the value of plaintiff's electric property as a whole was $5,556,091.00. Included in this value of the property as a whole was power system property, which Spooner & Merrill valued at $3,637,600.00. I have heretofore found in finding No. 22 on page 48, that the value of this power system property is only $3,017,381.00, so that Spooner & Merrill's value of the entire property is $620,219.00 excessive. Also included in Spooner & Merrill's total valuation is $135,402.00 as the value of Martinsville local property. I have already found the value of this property to be only $102,947.00, so that on this account, the Spooner & Merrill appraisal of the entire property is excessive to the amount of $32,455.00. Their excessive value of the power system property, plus the excessive value of the Martinsville local property, aggregates $652,674.00, which would leave Spooner & Merrill's valuation of plaintiff's entire electric property, after making deductions for excessive values for power system property and Martinsville local property, in the sum of $4,903,417.00.

Spooner & Merrill valued plaintiff's power system property at $3,637,600.00 and valued plaintiff's Martinsville local property at $135,402.00, or a total for power system property and Martinsville local property of $3,773,002.00. I have found the value of the power system property to be only $3,017,381.00, and I have found the value of Martinsville local property to be only $102,947.00, or a total for the two classes of property of $3,120,328.00. This is 82.7% of Spooner & Merrill's valuation of the same property [fol. 215] included in their valuation of the entire electric property. I think I may assume that Spooner & Merrill's valuation of plaintiff's entire electric property is upon the same basis as their valuation of the power system property and the Martinsville local property and that therefore 82.7% of their valuation of $5,556,091.00 is not far

from the fair value of the entire property. 82.7% of $5,556,091.00 is $4,594,887.00, and I find the value of plaintiff's entire electric property as of April 30, 1930, to be not less than $4,594,887.00. By similar method, I find the value of plaintiff's depreciable property was on April 30, 1930, not less than $4,341,364.00.

Exhibit 107, at page 39, shows plaintiff's net operating revenue for the calendar year 1929 to have been $393,-749.00. This, however, includes nothing for depreciation. 4% of the plaintiff's depreciable property, the value of which I found above, would be $202,905.00, which would leave operating revenue, after deduction of depreciation for the calendar year 1929 in the sum of $190,844.00. Defendants' witnesses testified that, if the rates complained of had been in effect in Martinsville during the year 1929, the difference in revenue would have amounted to $14,-800.00. Deducting this sum, we have left $186,044.00 as revenue for 1929, giving effect to the rates complained of. However, in 1929, there was included in expense $5180.00 for rate expense, which I have elsewhere in these findings found to be unjustifiable. Instead of that sum only $400.00 is properly chargeable. Adding the larger amount and deducting the smaller amount, I find the net revenue of the plaintiff from its entire electric business for the year 1929, [fol. 216] available for return upon the value of its property, to be $190,824.00, which is equivalent of a return of 4.15% upon the value of its entire electric property of $4,594,877.00, which I have found above.

I do not believe that the rates complained of should be tested on a system wide basis and I reject the system wide basis for fixing rates, but find the facts to be as above set out.

[fol. 217] XLVIII

I find that there was no substantial increase or decrease in the cost of reproduction of plaintiff's property, either as to Martinsville Local, or its Power System Property, at any time from February 1, 1929 to September 19, 1930, and that the value thereof was the same throughout said period of time, save and except, however, as to the cost of copper: from February 1, 1929 to May 1, 1930, the price of copper remained substantially the same: about May 1, 1930, it took a downward trend and by September 1,

1930 it had dropped to such an extent that the amount of copper necessary to reproduce the Power System Property of plaintiff could have been purchased for $124,858 less than what the same copper was worth, or would have cost, on February 1, 1929, and the amount of copper necessary to reproduce the Martinsville Local could have been purchased for $1,397 less than what the same copper was worth, or would have cost, on February 1, 1929.

[fols. 218-225] XLIX

Under the facts in this case, I am of the opinion, and so find, that the rate base herein should be obtained by taking the value of Martinsville Local at $102,947, and adding thereto $101,191.00, being the proportionate part of plaintiff's Power System Property which I find should be allocated to Martinsville, making a total value of $204,138.00 on February 1st, 1929, of plaintiff's property, and which amount I find to have been the fair and reasonable value of plaintiff's property actually used and useful by it for the convenience of the public at said time, including the element of giving weight to the reasonable cost of bringing such property to its then state of efficiency.

* * * * * * *

[fol. 226] LIII

The evidence taken before me has all been transcribed and is returned herewith in four bound volumes, containing 2479 pages; also a separate volume of Index. In the Index will be found a complete list and reference to, and description of, each and all of the separate and several Exhibits offered by the parties, and a reference to the page of the record showing the admission or rejection of the several Exhibits. All Exhibits offered by the respective parties, whether admitted or rejected, are returned into court with this report.

In addition to the time spent in hearing the evidence and argument of counsel, I was engaged on February 10, 11, 12, March 6, 7, 24, 25, 26, 30, 31, April 1, 7, 8, 9, 16, 21, 22 and May 9, together with several other parts of days during said time, in studying the record, reading the briefs, examining authorities and preparing this report.

[fols. 227 & 228] Conclusions

My conclusions of law upon the foregoing facts, and my recommendations herein, are as follows:

First

That the rates complained of by the plaintiff and set out in Finding No. VI herein are not confiscatory and do not take plaintiff's property without due process of law.

Second

That the defendants should not be enjoined from enforcing the rates set out in Finding No. VI herein.

Third

That the injunction hereinbefore granted against the defendants enjoining the enforcement of the rates set out in Finding No. VI herein should be dissolved.

Fourth

That the Bill should be dismissed for want of equity.

Dated at Indianapolis, Indiana, this 2nd day of July, 1931.

Respectfully submitted.

Albert Ward, Special Master.

[fol. 229] In United States District Court

[Title omitted]

Exceptions of Plaintiff Wabash Valley Electric Company to Report of Special Master—Filed July 22, 1931

Wabash Valley Electric Company, plaintiff in the above entitled cause, hereby excepts to the report of the Special Master filed herein on July 2, 1931, and separately and severally to each of the following findings and conclusions stated therein, to-wit:

1. To finding number XIX (p. 41) wherein the Special Master finds that the value of the local property of plain-

tiff in Martinsville that is actually used and useful for the convenience of the public in the service of electrical energy to Martinsville on May 1, 1930, was $102,947.00, for the reason that said value is too low, the fair value of said property being on said date, according to a fair preponderance of the evidence in this case, $135,402.00 (see Exhibit 2H).

[fol. 230] 2. To finding number XIX-½ (p. 43-½) wherein the Special Master finds that the value of plaintiff's local property in Martinsville that is actually used and useful for the convenience of the public in the service of electrical energy to Martinsville on February 1, 1929, was $102,947.00, for the reason that said value is too low, the fair value of said property being on said date, according to a fair preponderance of the evidence in this case $135,402.00 (see Exhibit 2H and Finding XIX-½, p. 43-½).

3. To finding number XXII (p. 47) wherein the Special Master finds that the value of plaintiff's power system property that is actually used and useful for the convenience of the public in the service of electrical energy to Martinsville on May 1, 1930, was $3,066,395.00, for the reason that said value is too low, the fair value of said property being on said date, according to a fair preponderance of the evidence in this case, $3,637,650.00 (see Exhibit 22, p. 10).

4. To finding number XXII-½ (p. 47-½) wherein the Special Master finds that the value of plaintiff's power system property actually used and useful for the convenience of the public in the service of electrical energy to Martinsvile on February 1, 1929, was $2,621,830.00, for the reason that said value is too low, the fair value of said property being on said date, according to a fair preponderance of all the evidence in this case, $3,360,999.00 (see Exhibit 21, p. 5).

5. To finding number XXLVII (pp. 98 to 100) wherein the Special Master finds that the value of plaintiff's entire electric property actually used and useful for the convenience of the public in the service of electrical energy on April 30, 1930, was $4,594,887.00, for the reason that said [fol. 231] value is too low, the fair value of said property being on said date, according to a fair preponderance of all

the evidence in this case, $5,556,091.00 (see Exhibit 20, p. A).

6. To the failure of the Special Master to find the value of plaintiff's entire electric property used and useful for the convenience of the public in the service of electrical energy on February 1, 1929. The value on said date was $5,026,437.00 (see Exhibit 21, p. 6), and there should have been a finding in that sum.

7. To that part of finding number XXXV (p. 76 at 78) wherein the Special Master finds that in fixing values of plaintiff's property for the purpose of this case, nothing should be included for cost of financing. (See testimony of Messrs. Kelley, Pennington, Spooner, Burnell and Schiesz).

8. To that part of finding number XII (at p. 28) wherein the Master found that the unit prices used in making up the appraisal of the Stone & Webster Engineering Corporation are too high and the amounts added thereto for general construction costs are unwarranted and their allowance for organization, working capital, cost of financing, and going value is exorbitant and unreasonable in each case.

9. To that part of finding number XXXII (p. 69 at 73) wherein the Special Master finds that the percent of depreciation allowance should be applied to the present value, giving consideration to the cost of reproduction new of the property less a reasonable amount for depreciation, instead of applying said percent of depreciation allowance to the reproduction new value of the property without depreciation.

10. To that part of finding XXIII-½ (p. 52) wherein the Special Master finds that the value of plaintiff's three [fol. 232] generating plants was on February 1, 1929, $309,388.00, for the reason that said value is too low, the fair value of said generating plants being on said date, according to a fair preponderance of all the evidence in this case, $424,282.00 (see Exhibit 2-I, p. 1, and testimony of Messrs. Spooner, Cook, Burnell and Sittinger).

11. To finding number XXIII (pp. 49 to 51) wherein the Special Master finds that the unit prices adopted and used

by the witness Abbett in determining the value of plaintiff's property and his allowance for depreciation are fair and reasonable, for the reason that said unit prices are too low and said allowance for depreciation is too high. (See Exhibits 2-A to 2-I, both inclusive, and testimony of Messrs. Spooner, Cook, Burnell and Sittinger.)

12. To finding number XLIV (pp. 95 and 96) wherein the Special Master finds that a fair and adequate gateway rate for Martinsville is $.018. If a gateway price should have been found, or is material, then same should have been $.024996 per K. W. H. as of February 1, 1929 (See Exhibit 21, p. 4), and it should have been $.024183 per K. W. H. as of May 31, 1930 (See Exhibit 22, p. 6).

13. To finding number XXVIII (p. 60) wherein the Special Master considers apportionment of power system property value to Martinsville and finds that an apportionment of power system property value to Martinsville on the basis of 3.30% of the whole power system value is fair, and finds that $101,191.00 is the fair value of plaintiff's power system property to be apportioned to Martinsville and that the total rate base upon which plaintiff is entitled to earn a fair return out of revenues derived from rates at Martinsville is $204,138.00. If power system property is to be allocated to Martinsville on a percentage basis, then percent should be not less than 6.63% and the amount thereof to be [fol. 233] apportioned should be not less than $222,063.00. (See Exhibits 2-A to 2-I, inclusive, and Exhibits 7 and 8, and testimony of Messrs. Spooner, Cook, Burnell, Sittinger and Schiesz.)

14. To that part of finding number XXX (p. 64) wherein the Special Master finds that electric current furnished by plaintiff to affiliated companies should not be eliminated in arriving at a rate base, i. e., that in determining the proportionate part of power system value to be allocated to Martinsville and determining the proportionate part of power system expense to be allocated to Martinsville, the denominator of the fraction (of which Martinsville deliveries or demand, depending on the method used, is the numerator) shall include the deliveries to or the demand of the affiliated companies, depending upon whether the proportion is based upon deliveries or demand; and also to that

part of said finding, wherein the Special Master finds that, if an allocation of plaintiff's power system property is to be made and charged to Martinsville in connection with the establishment of a proper rate base herein, the amount thereof should not exceed $101,191.00. If a separate rate base for Martinsville is to be fixed, then in determining it current furnished to affiliated companies should be eliminated and the amount of power system property to be allocated to Martinsville should be not less than $222,083.00. (See Exhibits 21 and 22, and 2-A to 2-I, inclusive, and testimony of Messrs. Spooner, Cook, Burnell, Sittinger & Schiesz.)

15. To finding number XLIX (p. 102) wherein the Special Master finds that the rate base herein should be obtained by taking the value of Martinsville local property at $102,947.00, and adding thereto $101,191.00, being the proportionate part of plaintiff's power system property which the Special Master finds should be allocated to Martinsville, making a total of $204,138.00 on February 1, 1929, of plain- [fol. 234] tiff's property, which amount the Special Master finds to have been the fair and reasonable value of plaintiff's property actually used and useful by it for the convenience of the public at said time, including the element of giving weight to the reasonable cost of bringing such property to its then state of efficiency. A fair consideration of all the evidence would result in a valuation of the Martinsville local property at $114,650 00, and a fair valuation of power system property to be allocated to the Martinsville rate base, if Martinsville is to be treated as a segregated unit, of $222,063.00, making a total of $336,713.00 as the fair and reasonable value of plaintiff's property actually used and useful by it for the convenience of the public at Martinsville, if Martinsville is to be treated as a segregated unit. (See Exhibits 2-A to 2-I, also Exhibits 7 and 8, also testimony of Messrs. Spooner, Cook, Burnell, Sittinger and Schiesz.)

16. To that part of finding number XXX-½ (p. 64-½) wherein the Special Master finds that it is not fair to plaintiff's customers at Martinsville and to its other customers within its own territory to require them to pay rates sufficient to pay all operating expenses, depreciation and return on plaintiff's power system property as the same exists and is being used.

17. To that part of finding number XLVII (p. 98 at 100) wherein the Special Master rejects the method of testing the rates complained of on a basis of plaintiff's entire electric net revenue applied to the value of its entire used and useful electric property.

18. To that part of finding XXIX (p. 61) wherein the Special Master finds that the whole of plaintiff's electric property should not be considered in establishing the rate base in this case and that the test of the adequacy of rates [fol. 235] is not whether or not with a particular rate in effect an adequate return will be earned by plaintiff's entire electric business based upon the fair value of its entire electric property used and useful in its electric business as a whole. Also to that part of said finding, in which the Master holds that it was the spirit of the statute and the intent of the legislators that rates should be fixed upon the basis of the reasonable value of the property actually used and useful in the service of each community separately.

19. To finding number XXXI (pp. 65 to 68) wherein the Special Master finds that the amounts charged in plaintiff's operating account, to-wit: $5180.65 in the calendar year 1929 and $6235.98 in the year ending May 31, 1930, are exorbitant and unreasonable and that there should be included in plaintiff's expense and operating accounts only the sum of $400.00 per year for a period of ten years for the expense of this rate case, for the reason that it was the uncontradicted evidence that plaintiff's total expense in connection with this case up to May 31, 1930, had been approximately $60,000.00, and the management of plaintiff's property had amortized said total expense and charged $5180.65 thereof to operating expenses during the year 1929, and $6235.98 thereof to operating expenses during the year ending May 31, 1930, and for the further reason that there was no evidence that said expenses were unreasonable, but, on the contrary, the fair inference from all the evidence was that same were fair and reasonable. (See testimony of Messrs. Schiesz, Spooner and Cook.)

20. To that part of finding XXXI (p. 68) wherein the Special Master finds that the character of defense to be made by a utility in rate cases and the extent of prepara-

tion therefor and the cost thereof is not a matter which [fol. 236] should be reposed in the sound judgment of the management of the utility, and to his resultant finding that the same is a matter for determination by the Public Service Commission of Indiana, and to his approval of the action of the Public Service Commission of Indiana in limiting the amount of such expense for this case to $4,000.00 amortized at the rate of $400.00 a year over a period of ten years.

21. To finding number XXXVI (p. 80) wherein the Special Master finds that a return of 7% upon the fair value of plaintiff's used and useful property would be a fair and reasonable allowance to plaintiff in this action. A fair return would be not less than 8%. (See testimony of Messrs. Spooner and Burnell.)

22. To finding number XL (p. 88) wherein the Special Master finds that, if the method of allocating plaintiff's power system property to Martinsville is adopted and the calendar year of 1929 is used as the basis for testing the reasonableness of the rates complained of, they would have yielded a fair rate of return on the fair value of plaintiff's property used and useful in giving the service to which the rates apply, and that they would have left net for return $22,499.59. If the method indicated in this finding is adopted and the method used in said finding is followed, the rates complained of would have left for net return on the fair value of plaintiff's property used and useful in giving the service to which the rates apply of only $6121.10, which provides a return of only 1.82% upon the sum of $336,713.00, which is the fair value of said property, if power system property is to be allocated to the Martinsville rate base. (See Exhibits 2-A to 2-I, also Exhibits 7 and 8, also testimony of Messrs. Spooner, Cook, Burnell, Sittinger, Andrus and Schiesz.)

23. To finding number XLI (p. 90) wherein the Special [fol. 237] Master finds that, if the rates complained of had been in effect during the twelve months period ending May 31, 1930, there would be a net revenue of $20,440.18 for return upon the combined value ($204,138.00) of the Martinsville local property and the allocable part of plaintiff's power system property. The combined value of the Mar-

tinsville local property and the allocable part of plaintiff's power system property amounts to $336,713.00, instead of $204,138.00 found and used by the Master in this finding, and instead of a net revenue of $20,440.18 for return upon such combined value, there would have been a net revenue of only $2978.69 for return thereon. (Exhibits 2-A to 2-I, also Exhibits 7 and 8, also testimony of Messrs. Spooner, Cook, Burnell, Sittinger, Andrus and Schiesz.)

24. To finding number XLV (p. 96) wherein the Special Master finds that, if the gateway method of charging power to Martinsville and the calendar year of 1929 are used as the basis of computation of rate of return, there would be a balance of $13,101.80 available to pay return upon the fair value of ($102,947.00) the Martinsville local property. If the gateway method of charging power to Martinsville and the calendar year of 1929 are used as the basis of computation of rate of return, there would be an operating deficit of $10,488.66, instead of the sum found by the Master to be available to pay return on the fair value of the Martinsville local property, which fair value is $114,650.00, instead of $102,947.00 indicated by the Master in this finding (See Exhibits 2-A to 2-I, also Exhibits 7 and 8, also testimony of Messrs. Spooner, Cook, Burnell, Sittinger, Andrus and Schiesz).

25. To finding number XLVI (p. 97) wherein the Special Master finds that, if the gateway method of charging power to Martinsville and the year ending May 31, 1930, are used as a basis for computation, there would be net revenue of $11,967.78 available for return on the fair value ($102,-947.00) of the Martinsville local property. If the gateway [fol. 238] method of charging power to Martinsville and the year ending May 31, 1930, are used as a basis for computation, there would be an operating deficit of $12,666.76 with nothing for return on the fair value of Martinsville local property, which fair value would be $114,650.00, instead of $102,947.00, the figure indicated by the Master in this finding. (See Exhibits 2-A to 2-I, also exhibits 7 and 8, also testimony of Messrs. Spooner, Cook, Burnell, Sittinger, Andrus and Schiesz.)

26. To finding number LI (pp. 104 to 106) wherein the Special Master finds that the evidence of defendants' wit-

ness Husselman should be admitted and considered when it appeared without contradiction that said Husselman was employed by the intervenor City of Martinsville upon a basis whereby his compensation was contingent upon the result of this case and was to be 25% of the saving made in one year by the citizens of Martinsville by reason of difference between rates being paid and rates established as the result of this case, because such a contract is contrary to public policy and to permit such a witness was and is contrary to public policy.

27. To the Special Master's First conclusion of law that the rates complained of are not confiscatory and do not take plaintiff's property without due process of law.

28. To the Special Master's Second conclusion of law that the defendants should not be enjoined from enforcing the rates complained of.

29. To the Special Master's Third conclusion of law that the injunction hereinbefore granted against the defendants enjoining the enforcement of the rates herein complained of should be dissolved.

[fol. 239] 30. To the Special Master's Fourth conclusion of law that the bill herein should be dismissed for want of equity.

Wherefore plaintiff prays that the foregoing exceptions, and each of them, be sustained and that said report of the Special Master herein be disapproved and not confirmed and that a decree be entered herein enjoining the enforcement of the rates complained of herein and containing such other provisions and requirements as to this Honorable Court may seem just and equitable in the premises.

P. J. Lucey, Glenn Van Auken, S. C. Kivett, Fesler, Elam & Young, Cooke, Sullivan & Ricks, Solicitors for Plaintiff. Of Counsel: Howard S. Young.

[fol. 240] IN UNITED STATES DISTRICT COURT

ORDER SUBSTITUTING PARTIES DEFENDANT—Dec. 18, 1931

Come now the parties and it is represented to the Court that Jere West has succeeded the defendant Harvey Har-

mon, as a member of the Public Service Commission of Indiana, and that Harry K. Cuthbertson has succeeded the defendant Calvin McIntosh, as a member of the Public Service Commission of Indiana.

Upon motion of the plaintiff, it is ordered that Jere West be, and he is hereby, substituted as a defendant herein in place of said Harvey Harmon, and that Harry K. Cuthbertson be, and he is hereby, substituted as a defendant herein in place of said Calvin McIntosh, both as members of the Public Service Commission of Indiana.

[fols. 241 & 242] IN UNITED STATES DISTRICT COURT

ORDER ALLOWING SPECIAL MASTER'S FEE—Dec. 18, 1931

It is ordered by the Court that Albert Ward be and he is hereby allowed the sum of Four Thousand Five Hundred Dollars ($4,500.00) for his services as Special Master in this cause.

[fol. 243] IN UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF INDIANA, INDIANAPOLIS DIVISION

In Equity. No. 1178

WABASH VALLEY ELECTRIC COMPANY, Plaintiff,

vs.

FRANK T. SINGLETON et al., Defendants

Before Sparks, Circuit Judge, and Baltzell and Slick, District Judges

OPINION—Filed Feb. 26, 1932

BALTZELL, District Judge:

This is an action in which the plaintiff, an Indiana corporation, is seeking to enjoin the defendant, Public Service Commission of Indiana, from the enforcement of an order wherein a schedule of rates was fixed by it for electricity

furnished by plaintiff to the city of Martinsville, Indiana, and the inhabitants thereof. Other defendants, aside from the individual members of the Public Service Commission, are Harry G. Leslie, Governor of the State of Indiana, and James M. Ogden, Attorney General of the State of Indiana. The city of Martinsville was permitted to intervene and file an answer in which it sought to sustain the schedule of rates, as fixed by the Commission.

The city of Martinsville has approximately five thousand inhabitants, but it has few industries that consume a large amount of electricity. A great portion of the electricity used is for domestic purposes. For a number of years the city was supplied with electricity by a local plant which was later purchased by plaintiff and is now owned by it.

In keeping with the general progress of the times, plaintiff, which is affiliated with other electric companies, purchased the electric light plant in the city of Martinsville, together with the local plants in the cities of Sullivan, Clinton, and many other cities throughout central and [fol. 244] western Indiana. It then began the construction of high tension lines, and to operate an interconnected system of electric plants throughout such territory, comprising the following thirteen counties: Sullivan, Greene, Owen, Clay, Vigo, Parke, Putnam, Morgan, Fountain, Warren, Montgomery, Vermillion and Tippecanoe. In order that its patrons might be properly served, plaintiff constructed a loop extending through each of the counties supplied by it with electricity. In the event the line in one part of the loop becomes disabled, current is furnished through the other part thereof, thus more nearly assuring current at all times. Current to supply its patrons, through this "loop system," is purchased in part from other utilities and in part supplied by the local plants owned by plaintiff. After the purchase of the local plants, however, the electricity generated by such plants ceased to be used for consumption by the locality in which such plants were situated. They were connected directly with the loop, and, combined with that furnished by other local plants and purchased from other utilities, provide electricity for the municipalities, as well as the industrial plants, coal mines, etc., located outside thereof, within such counties.

The thirteen counties furnished with electricity comprise a greater part of the Indiana coal fields, and at the

time plaintiff began its operation in these counties the coal mines were being operated extensively, requiring a great amount of current for such operation. Since that time, however, many coal mines have ceased operation, and the use of electricity in this industry has materially decreased. At the time plaintiff began its operation in these counties, practically all of the municipalities were being supplied by local plants, there being no interconnecting lines and such plants being owned by either the municipalities themselves or by private corporations. This practice has gradually been abandoned, and at the time of the filing of this suit most of the municipalities in such counties were being supplied by this plaintiff. In fact, electricity is furnished to [fol. 245] approximately fifty municipalities within such counties and to numerous industrial plants and individuals not within the corporate limits of any municipality.

In order that current may be furnished at a minimum cost, a large generating plant, known as the "Dresser Plant" was constructed on the Wabash River, near the city of Terre Haute, Vigo County, Indiana, by the Indiana Electric Corporation, which plant has a generating capacity of more than 300,000,000 KWH per year. The financing of this plant required the assemblage of a group of electric properties throughout the State of Indiana, in order that there might be guaranteed the disposal of a sufficient amount of electricity each year to justify the construction thereof. Consequently, existing electric utilities were acquired by affiliated corporations throughout Indiana, each to be connected with the Dresser Plant in order to assure economical operation. Among the affiliated corporations were the Wabash Valley Electric Company, plaintiff, Attica Electric Company, Colfax Electric Company, Indiana Electric Corporation, Northern Indiana Power Company, Moran Electric Light & Power Company, and the Mulberry Light & Power Company. The current consumed by these affiliated companies, and others not affiliated, aggregated approximately the entire capacity of such plant. Practically the entire amount of stocks, bonds and other security of these seven companies, in fact, more than ninety-nine per cent (99%) thereof, is owned by the Central Indiana Power Company. These affiliated companies have common officers and common management, although operating separately.

Through the above arrangement, light and power is furnished the city of Martinsville by plaintiff, the greater portion of which is obtained from the Dresser Plant. The plaintiff had on file with the Public Service Commission at all times, subsequent to its agreement to furnish electricity to the city of Martinsville and the inhabitants thereof, a schedule of rates approved by such Commission. On the 16th day of March, 1927, seventeen citizens of Martinsville, and patrons of plaintiff, filed with defendant commission a [fol. 246] petition seeking a reduction in such rates. Hearings upon the petition were had at various times by the Commission, and a final order was entered on the 26th day of January, 1929, effective as of February 1st following, fixing the rates and charges which plaintiff should be entitled to collect from its subscribers in Martinsville. Such order considered the municipality as the unit, in arriving at the schedule of rates. This is the order of which plaintiff complains in this suit, the enforcement of which it is seeking to enjoin, upon the ground that the rates and charges so fixed in such order are not sufficient to yield an adequate return upon plaintiff's property, used and useful, in supplying electricity to such city, its inhabitants and industries. Plaintiff contends that such rates and charges are confiscatory, deprive it of its property without due process of law, and deny it the equal protection of the law in violation of its rights under the Fourteenth Amendment to the Constitution of the United States.

A temporary restraining order, and later a temporary injunction, were issued by this court, enjoining the enforcement of such order. The temporary injunction now in force was issued, however upon the condition that in the event it is dissolved and a decree entered upon final hearing sustaining the order of the Commission, then, the plaintiff is to refund to its customers in Martinsville, or credit to their respective accounts, any sums collected in excess of those which would have been collected under the schedule of rates, as contained in the order in question. Reference was subsequently made to a Special Master for the purpose of hearing the evidence and reporting same to this court, together with his Special Findings of Fact and Conclusions of Law. The Special Master made report, to which plain-

tiff has filed thirty exceptions. Hearing was had by this court upon such report and exceptions thereto, and subsequently, this court has filed its Special Findings of Fact and Conclusion of Law, in compliance with Equity Rule 70½.

[fol. 247] The first question necessarily presented for determination is the method to be used in determining the value of plaintiff's property, used and useful in supplying electricity to the city of Martinsville. It is the contention of plaintiff that its electric property and system, as a whole, should be the unit, and that the schedule of rates and charges for Martinsville should be tested by their effect upon its entire net revenue and the relation of such net revenue to the value of its entire used and useful electric property. The defendants contend that the city of Martinsville should be considered as a segregated unit for the purpose of determining its schedule of rates. In fixing the value of plaintiff's property, used and useful, for the supplying of electricity to such city, defendant commission fixed first, the value of its local property. It next fixed the "gateway" price for all electrical current furnished by it to Martinsville, this being the price allowed for such current at the city limits. In determining this price, it took the average cost per KWH of all current handled by plaintiff through its entire system and added thereto an arbitrary amount for depreciation and return. In other words, after determining the value of the local property, used and useful, in supplying electricity for such city, and determining the "gateway" price for supplying same, then defendant commission proceeded to fix a schedule of rates therefor without regard to the effect of such procedure upon the rate of return which plaintiff will realize from its entire system upon the entire value thereof.

In order that a logical and correct conclusion may be reached, concerning the proper method to be used in determining this question, it is necessary to examine the law under which the Public Service Commission is operating. Prior to the year 1913, each municipality, through its officials, was charged with the duty of providing public utility service for such municipality and the inhabitants thereof, and was, under the law, given ample power to perform such duty. Practically every municipality within the State, the size of

Martinsville, had a light and power plant, owned either by such municipality or by a private corporation. The schedule [fol. 248] of rates was fixed by the municipality, acting through its officials, and dealing with the utility. In order that the responsibility of the fixing of rates, etc., might be removed from local officials and be centered in a body which was to be provided with expert accountants, engineers, appraisers, etc., the legislature of 1913 enacted the Public Utility Act, known as the Shively-Spencer Utility Act. At the time of the passage of this Act, the development of electrical power plants was in its infancy, as compared with the present day. The one thing that was uppermost in the minds of the legislators, in enacting their legislation, was to bring about reasonable rates and adequate service on the part of the utility on the one hand, and the municipality and its inhabitants on the other. Provision is made whereby complaint may be made as to the schedule of rates in force by either the municipality, a certain number of citizens thereof, the utility, etc., in the event they are not satisfied with the existing rates. That is to say, the Utility Act gives to either the municipality, the citizens thereof, or the utility itself, the privilege of petitioning the Public Service Commission for an adjustment of rates, etc. Shively-Spencer Utility Act. Sec. 57; Burns' Rev. Stat. 1926, Sec. 12,728. Section 9 of this Act also provides that "the Commission shall value *all* the property of every public utility actually used and useful for the convenience of the public." It is the contention of the plaintiff that this section is a direct mandate to the Commission, and that it must, therefore, make a valuation of all its property used in its entire system, as a unit, in order to determine a proper schedule of rates for the city of Martinsville. It is further contended that a reasonable return must be had upon the value of all its property, before the rates at Martinsville can be adjusted. All of its property is not used and useful for the supplying of electricity to such municipality. Much of it is used for other municipalities, industrial plants, etc., with which defendant city is not concerned. This section refers to the property that is used and [fol. 249] useful in connection with the furnishing of a utility to any municipality under consideration, in this instance, Martinsville. To give it any other construction would make the very law, which was enacted for the benefit of the municipalities and the inhabitants thereof, as well

as for the benefit of the utility, prohibitive, from the viewpoint of the public. It would make it necessary to have all the property of the entire system appraised each time a single municipality, or ten or more of its citizens, petitioned the defendant commission for a revision of its rates. The expense alone, if allowed to be taxed as an operating expense, as contended by plaintiff, would be so great that in many, if not every instance, it would result in an increase, instead of a reduction in rates.

There has been no change or modification of this Act insofar as the above provisions are concerned, and it must, therefore, be concluded that it was the intention of the legislature that the municipality should be the unit in determining the just and reasonable rates to be paid any public utility by it and its inhabitants. Many legislatures have convened subsequent to the passage of this Act, but none have seen fit to change or modify it in that particular.

Whether any division of the State, other than a municipality, shall be designated as a unit for the purpose of fixing rates for a utility, is a matter of public policy to be exercised by the legislature. Until that is done, neither the Public Service Commission, nor a court, can consider any other unit than that which is now fixed by the legislature, namely, the municipality, in establishing a schedule of rates for the services of a utility in such municipality.

The Public Utility Act of Indiana has never been construed in this particular by the Indiana Supreme Court. It is known, however, that such Act is patterned generally after the Public Utility Act of Wisconsin, and many of its provisions are identical. The Supreme Court of that State, in a well reasoned opinion, held that the Railroad Commission of Wisconsin, which is similar to the Public Service [fol. 250] Commission of Indiana, is "required to treat the municipality as a unit and base its rate upon the cost to the utility of serving the individual municipality, rather than the average cost of serving many districts and scattered municipalities." City of Eau Claire, et al. v. Railroad Commission, 189 N. W. 476.

The Special Master found the value of plaintiff's property used and useful, for supplying electricity to defendant municipality, to be somewhat in excess of that as fixed by the Commission, but he further found that the schedule of rates, as fixed by the Commission will yield a net income

which is a reasonable return upon the value, as fixed by him. This court has approved the finding of the Master insofar as the value of plaintiff's property is concerned, and in its Special Findings of Fact filed in this cause has found the value of the local plant at Martinsville to be $102,947.00, and has found the value of all other of plaintiff's property which is used and useful in supplying electricity to such city, to be $101,191.00, a total value of $204,-138.00. If the schedule of rates, as fixed by the Commission, is sufficient to yield a reasonable return upon the valuation, as found by this court, then the order of which complaint is made cannot be disturbed, even though the valuation, as fixed by the Commission, is much too low. It is the function of the court to determine whether or not the rates, as fixed by the Commission, yield such a small return upon the value of plaintiff's property (considering the municipality as a unit) as to amount to confiscation, and thereby violate the Constitution of the United States. The Minnesota Rate Cases, 230 U. S. 352; 57 L. Ed. 1511; 33 S. Ct. 729, San Diego Land & Town Co. v. Jasper, 189 U. S. 439; 47 L. Ed. 892; 23 S. Ct. 571.

It is the contention of the plaintiff that the valuation of its property, even though the Commission used the proper method, is too low. It is further contended that the schedule of rates provided in the order is insufficient to yield a reasonable return upon the value of its property.

The Commission found the value of the local property [fol. 251] at Martinsville to be $87,000.00. Such property consisted of poles, towers, overhead conductors, transformers, land, etc. This property was appraised by a Mr. Abbett, engineer for the Commission who testified before the Master as to the manner in which he fixed the valuation of each particular item. It was also appraised for plaintiff by Spooner & Merrill, a reputable engineering firm. These engineers differ as to the manner in which their appraisals were made, and consequently, their conclusions vary somewhat. The Master heard the testimony of these engineers, as well as the testimony of all of the other witnesses, and is qualified to determine the weight and credit to be given to such testimony. In arriving at his conclusion, as to the value of such property, it is sufficient to say that he considered properly the cost of reproduction new, of all physical property, and fixed its depreciated value at $84,589.00. To

this he added the sum of $3,358.00 for "Working Capital;" the sum of $6,500.00 for "Material and Supplies," and the sum of $8,500.00 for "Going Value;" making a total added to the value of the physical property of $18,358.00. These items are all proper to be considered in determining the value of a utility property for rate-making purposes and are all that should be considered in this case, in arriving at that value. These items, in general, are computed, by experts, found upon well defined rules and upon experience, yet, they are not and cannot be as accurate as an appraisal of something actually in existence. When it is recalled, in the instant case, that an amount in the sum of approximately $18,000.00 for this purpose is added to the sum of $84,569.00 the value of the physical property, it would clearly indicate that such amount is sufficient.

An inventory and appraisal of all property, classified as the "power system" was made by both the engineer for the Commission and the engineers for plaintiff. This appraisal correctly excludes all local distribution property which is not in any manner used and useful in supplying current to Martinsville. Included in this inventory are three generating plants in their entirety. The appraisal of [fol. 252] the engineers again differs in some particulars, and it was necessary for the Master to determine the value from all the evidence. The value depreciated at the date of the order of all of plaintiff's physical power system, used and useful for supplying electricity to the public generally, among which was Martinsville and its inhabitants, and exclusive of the value of the local plant, is $2,124,830.00. To this was added the following, all of which are proper:

Working Capital	$80,000.00
Fuel stock	5,000.00
Material & Supplies	162,000.00
Going Value	250,000.00
Total	$497,000.00

This makes a total value depreciated in the sum of $2,621,830.00 as of the date of the order. Between that date and the date of the hearing, May, 1930, there had been additional capital added in the sum of $444,565.00, making the

value of the property, at the date of the hearing, $3,066,-395.00.

The question of the method to be used in allocating a proper portion of this value to Martinsville is the next to be considered and is one that is not free from difficulty. The records of plaintiff disclose the total sales of Kw. H. during each year. Such records also disclose the sales of Kw. H. to the city of Martinsville by plaintiff for the same period of time. Bearing in mind the fact that the plaintiff is only a distributing utility, that it purchases practically all of its current from another utility, with which it is affiliated, it appears that the most logical and equitable method of making this allocation is on the basis of the ratio of actual sales of Kw. H. to Martinsville and its consumers to the total sales of Kw. H. by plaintiff during the year 1929, that being the last calendar year before the date of the hearing. By the use of actual sales figures, line and transformation losses are accounted for. One of the Commission's engineers made a calculation upon this basis and found the ratio to be 3.027 per cent. However, a calculation, based upon the output of the substation at Martinsville for the year 1929, which was 2,532,798 Kw. H., and [fol. 253] the total output of all sub-stations of plaintiff during the same period, which was 75,811,626 Kw. H., shows the ratio to be 3.34 per cent. The various calculations are comparatively close, several calculations other than the above having been introduced in evidence.

A study of all the evidence upon this question convinces us that a ratio of 3.30 per cent is fair and is the one that should be used, in arriving at the value of that part of plaintiff's power system which should be allocated to Martinsville. Applying this method, we find such value to be $101,-191.00. The maximum value of such allocated property, fixed by the commission's engineer as shown by the evidence presented to the Master, was $86,825.00.

It is contended by the plaintiff that an allowance should have been made for the "Cost of Financing" in determining the value of its property at Martinsville and the value of that part of all its property allocable thereto. This has been held in some instances to be a proper charge. In the instant case, however, there is no evidence that such a cost was incurred, or, in the event of reconstruction, that it would be necessary to incur such an expense. The Master prop-

erly refused to make an allowance for this item. Vincennes Water Supply Co. v. Public Service Commission, (C. C. A. 7th) 34 F. (2d) 5.

In fixing the value, therefore of plaintiff's property, to be used as the rate base for Martinsville, and upon which it is entitled to a reasonable return, there should be added the following:

Value of local property	$102,947 00
Value of power system, allocated to Martinsville	101,191 00
Total	$204,138 00

It is apparent that this valuation is in excess of that fixed by the Commission. This fact is of no importance, however, if the net revenue received by plaintiff, through the operation of the schedule of rates provided in the order in question, is sufficient to constitute a reasonable return upon the value, as found by the court.

[fol. 254] Therefore, the next and final question to be determined is whether or not the schedule of rates, as fixed by the order of the Commission, will yield a reasonable return upon the value of plaintiff's property, as found by this court, that is, upon the sum of $204,138.00. There is no fixed rule by which to determine the rate of return to which a public utility is entitled. Each case must be considered separately, and much depends upon the circumstances and the locality. Upon this question it has been said by the United States Supreme Court that "among other things, the amount of risk in the business is a most important factor, as well as the locality where the business is conducted, and the rate expected and usually realized in such locality upon investments of a somewhat similar nature with regard to the risk attending them." Wilcox v. Consolidated Gas Co. 212 U. S. 19; 53 L. Ed. 382; 29 S. Ct. 192.

This court has, at various times, fixed different rates of return, depending upon all of the surrounding circumstances, as shown in each particular case. For instance, in the case of Greencastle Water Works v. Public Service Commission, et al., 31 F. (2d) 600, the rate of return was fixed at six and one-half per cent (6½%), and the utility is operating under an order prepared by the Commission pro-

viding for such return and has been so operating for several years. In the case of McCardle, et al. v. Indianapolis Water Works, the Supreme Court of the United States affirmed a judgment of this court fixing the rate of return at seven per cent (7%). 272 U. S. 400; 71 L. Ed. 316; 47 S. Ct. 144.

The business in which plaintiff is engaged is not surrounded by any unusual hazards, although competition in that field is rather keen. The demand for electrical current is increasing from year to year, rather than diminishing, and plaintiff and its affiliated companies comprise one of the largest groups engaged in the manufacture and distribution thereof in the country. A return of seven per cent (7%) upon the value, as fixed by this court, will yield a reasonable return upon such value.

[fol. 255] If the schedule of rates provided by the order in question had been in effect during the year 1929, the gross revenue received by plaintiff in Martinsville would have been $84,750.13. If in effect during the year ending May 31, 1930, the date of the hearing in this case, such gross revenue for the year ending upon that date would have been $81,868.72. There is no dispute as to the gross revenue that would have been received during these periods, but the dispute arises as to the proper operating charges. It is fair to consider the year ending May 31, 1930, as a basis for the testing of the schedule of rates in question in determining whether or not they provide a reasonable return. The total operating expense to which plaintiff is entitled to deduct from its gross income during this period for distribution, utilization, commercial, new business, general and miscellaneous, taxes, uncollected accounts, amount to $25,544.43. To this amount must be added cost of power and the reasonable expense of this rate hearing. In other words, there must be fixed a price which plaintiff will be permitted to charge as an operating expense for the electric current delivered to Martinsville, which has been referred to as the "gateway" price. It is not an easy problem to determine the method to be adopted in determining this price. It is the contention of the plaintiff that the correct method to determine the proper "gateway" charge at Martinsville is to include all electricity delivered by it to all gateways. This would necessarily exclude that delivered to its affili-

ated companies, a great amount of which is delivered to the Attica Electric Company, and to the Northern Indiana Power Company. Using this method, the plaintiff contends that the proper charge is $.022897 per KWH, which, applied to the year ending May 31, 1930, in which there was delivered to Martinsville 2,528,511 KWH, the total charge for electrical current for that eriod would be $57,895.32. In arriving at this "gateway" charge, the plaintiff considers its entire power system operating expense, which is more than one million dollars, and deducts therefrom operating expenses and taxes on property which it allocates to the use of the Attica Electric Company and the Northern Indi- [fol. 256] ana Power Company. In carrying out this theory, it allocated to the Attica Electric Company and to the Northern Indiana Power Company approximately 31.9 per cent of its physical property, which it deducted from the value of all of its physical property, and fixed a rate of return of eight per cent (8%) upon the balance after making this deduction. It also figured a four per cent (4%) depreciation. The Commission fixed the proper "gateway" charge at $.0172 per KWH. It apparently arrived at this charge by a computation of the average cost per KWH during a given period of time, to which it arbitrarily added a small amount for what it considered a fair return upon the property, used and useful, in the generation of such current and its delivery to Martinsville.

This court cannot accept the method advanced by plaintiff as being the proper method to be used in determining such "gateway" charge. The plaintiff is one of several affiliated companies, included in which are the Attica Electric Company and the Northern Indiana Power Company, all under a common management and organized primarily for the purpose of disposing of the electric current generated at the Dresser Plant. The actual "gateway" cost of current delivered to Martinsville, exclusive of any allowance for depreciation and return, was $.0133 per KWH for the year ending May 31, 1930. This price is adequate, and is the price found by this court to be a proper charge for all electrical current furnished during that year to defendant city. The amount delivered was 2,528,511 KWH at $.0133, making a total of $33,629.20, which amount plaintiff is entitled to charge as an operating expense for that

year. A proper charge of four per cent (4%) for depreciation of the value of the physical property allocated to Martinsville has been allowed, but is not included in the "gateway" charge.

The other question is the amount allowed as expenses of this rate case. The Commission made an allowance of $4,000.00 amortized over a period of ten years, or a charge to operating expense of $400.00 per year. The plaintiff contends that it should be allowed a sum in excess of [fol. 257] $60,000.00 for this expense; in fact, it entered a charge on its books in the sum of $6,235.98 for rate expense for the year 1929, and charged this amount as an operating expense against Martinsville. This charge is, within itself, an answer to the theory of plaintiff as to the method to be used in determining the value of its property, that is, that it must be considered as an entirety. If a rate expense as high as that asked, approximately seventy-five per cent (75%) of the gross receipts for one year, is permitted to be charged to operating expense, it will serve as a penalty for the filing of a petition by a municipality, or its citizens, for a reduction in rates, because it will invariably culminate in an increase, rather than a reduction. The amount as fixed by the Commission, is reasonable.

A simple computation for the year ending May 31, 1930, discloses the following:

Gross Revenue	$81,868.72
Operating Expenses:	
Power—2,528,511 KWH @ $.0133	$33,629.20
Rate Expense	400.00
Other Expenses	25,544.43
Total	$59,573.63
From which should be deducted for indirect charges to "Construction" the sum of	4,920.25
Balance	$54,653.38

To this balance should be added four per cent (4%) of the physical value of plaintiff's property at Martinsville and of the power system, allocated thereto for depreciation, which amounts to $6,775.16, making a total operating

charge of $61,428.54, which amount, deducted from the Gross Revenue, leaves a Net Revenue in the sum of $20,440.18. This sum represents a return far in excess of seven per cent (7%) of the value of plaintiff's property ($204,138.00) which the court has found to be a reasonable return.

[fols. 258 & 259] Under this state of facts, the schedule of rates provided in the order of the Commission in question is adequate to yield a reasonable return upon plaintiff's property, used and useful, in supplying electricity to the city of Martinsville. Such rates are not confiscatory and do not violate any of plaintiff's rights under the Constitution of the United States.

The temporary injunction heretofore issued, and now in effect in this case, will be dissolved, and plaintiff will refund to its customers, or credit to their respective accounts, all sums of money which it has collected in excess of those which it would have collected under the schedule of rates as provided in the order in question. Exceptions of plaintiff to the Special Master's Report are overruled, and the bill is dismissed for want of equity.

A decree will be entered accordingly.

[fol. 260] In United States District Court for the Southern District of Indiana, Indianapolis Division

In Equity. No. 1178

Wabash Valley Electric Company, Plaintiff,

vs.

Frank T. Singleton et al., Defendants

Special Findings of Fact and Conclusions of Law—Filed Feb. 26, 1932

This cause having been, on the Court's own motion, submitted to a Special Master to take and report the evidence with his findings of fact and conclusions of law, and the plaintiff having filed exceptions to some of the Master's findings and to his conclusions of law, and the Court having examined the evidence taken and reported by the Special

Master and the Master's report of his findings of fact and conclusions of law, also said exceptions, and having heard the arguments of counsel and being duly advised in the premises, now finds the facts to be as follows:

[fol. 261] 1. Plaintiff is an Indiana public utility corporation, and is subject to regulation by the Public Service Commission of Indiana.

The defendants are the members of said Commission, the Attorney General and the Governor of Indiana, and the City of Martinsville by intervention.

This suit is of a civil nature in equity, arises under the constitution and laws of the United States, and involves more than $3,000 exclusive of interest and costs.

The schedule of rates and charges in controversy and the order of said Commission prescribing them are as they are set out in Exhibit A to the bill of complaint, and the same are incorporated here by reference.

A restraining order was issued herein on March 1, 1929, also a temporary injunction on the 6th of April following, restraining the enforcement of the rates complained of, on condition that if said rates become effective upon final hearing the plaintiff shall refund or credit to its customers at Martinsville any sums collected from them in excess of the rates complained of.

2. The City of Martinsville is located in the County of Morgan in said State, and has approximately five thousand inhabitants. There are few industries in said City that consume large amounts of electricity. A great por- [fol. 262] tion of the electricity there used is for domestic purposes. For a number of years electricity was supplied in said City by a local generating and distributing plant, which was later purchased by plaintiff and is now owned by it.

3. The plaintiff is one of seven affiliated corporations giving electric service to the public in Indiana, and whose combined outstanding capital stocks and securities are owned by a corporation known as Central Indiana Power Company. The other six of said affiliated public utility corporations are Indiana Electric Corporation, Attica Electric Company, Northern Indiana Power Company, Colfax Electric Company, Moran Electric Light and Power Company, and Mulberry Light and Power Company.

The same persons who are officers and directors of plaintiff corporation also occupy the corresponding positions in the other six of the affiliated corporations. The operation of this affiliated group is in charge of a committee consisting of representatives of each of the corporations.

4. At some time prior to 1924, and in keeping with the progress of the times in the electric industry, the financial interests in control of said affiliated group, conceived the plan of constructing a large modern generating plant at Dresser, Indiana for the manufacture of current at a minimum cost and of distributing the current so manufactured [fol. 263] throughout large areas of territory in said State. The said group of corporate structures was formed to facilitate said plan.

The financing of such generating plant required the assemblage of a group of electric properties throughout a large part of said State, in order that there might be guaranteed the disposal of a sufficient amount of electricity each year to justify the construction of a generating plant of that type.

In pursuance to this plan a large generating plant, known as the "Dresser Plant" was constructed on the Wabash River, near the City of Terre Haute in Vigo County of said State by Indiana Electric Corporation, one of said affiliated companies. This plant has a generating capacity of 300,000,000 K W. H. per year, and has been in operation since 1924. Existing electric utility properties were severally acquired by the affiliated corporations in forty counties in said State. Transmission lines and other power system equipment were constructed, interconnecting the acquired electric properties with each other and with the Dresser Plant in order to assure economical operating. A pool of electricity was thus provided and made available for the needs of each of the affiliated corporations. Power loops were constructed throughout the affiliated system of properties so that current could be fed in either direction in event of disablement of a section of transmission line.
[fol. 264] The combined needs of the affiliated companies for current have increased so that for the twelve month period ending May 21, 1930, the combined total of current used was between 475,000,000 and 500,000,000 K. W. H. To meet this increased demand the affiliated system has been

interconnected with several other large generating plants located in Indiana, some of which are controlled by the same financial interests that control said affiliated group. Indiana Electric Corporation has also constructed a 132 K. V. line across said State to the "Columbia Plant" of Columbia Power Company in Ohio near Cincinnati, over which line current manufactured at the Columbia plant is made available to said affiliated system.

This affiliated system of properties was planned, constructed and interconnected and is being operated by said common management as one large system, although each of said affiliated companies owns distinct property, keeps separate accounts and is operated as a distinct public utility.

5. For the furtherance of said plan, plaintiff, Wabash Valley Electric Company, purchased the local electric plant at Martinsville, also the local electric plants at Sullivan and Clinton and at many other widely scattered cities and towns located in central and western Indiana in the counties of Morgan, Putnam, Owen, Sullivan, Greene, Clay, Vigo, Parke, Vermillion, Fountain, Montgomery, Warren and Tippecanoe.

[fol. 265] These local plants were interconnected by high tension transmission lines which in turn were interconnected with similar lines of other affiliated companies in the affiliated system. Substations and transformers were constructed for the purpose of feeding current from plaintiff's power system onto its local distribution properties in the various cities, towns and communities where it furnishes electric service.

After plaintiff acquired such local plants it ceased to operate such local generating plants except occasionally in event of system peak demand. It now owns three small local generating plants located at Martinsville, Sullivan and Clinton. The electricity generated by these local plants is not fed directly onto the local distribution systems in said cities, but it flows into the affiliated system power pool.

The greater part of the Indiana coal fields lie within the counties in which plaintiff furnishes electric service. At the time when plaintiff began its operations in these counties the coal mines were being operated extensively, requiring a great amount of current for such operation. Since then many coal mines have ceased or curtailed operation, and

the use of electricity in this industry has materially decreased. At the time plaintiff began its operations in these counties practically all of the municipalities therein were being supplied with electricity by local plants, there being [fol. 266] no interconnecting transmission lines, and such plants were owned either by the municipalities themselves or by private corporations. This practice has gradually been abandoned, and most of these municipalities are now being supplied electricity by plaintiff. Plaintiff furnishes electric service to approximately 18,000 individual customers in approximately fifty cities, towns and communities and in rural territory, including the City of Martinsville.

Plaintiff is the only utilities furnishing electric service to the inhabitants at Martinsville, and it operates there under an indeterminite permit from the State of Indiana and under the terms and provisions of the Shively-Spencer Utility Commission Act of said State. The electricity that is distributed in Martinsville is fed onto plaintiff's local distribution system from its said power system property. The current so used comes principally from said Dresser plant.

Plaintiff also owns and operates a gas plant at Martinsville, but no question of gas rates is here involved.

6. On the 16th day of March, 1927, and while plaintiff was furnishing electric service at Martinsville in the manner described, seventeen citizens of Martinsville, who were electric patrons of plaintiff, filed with defendant Commission a petition seeking a reduction in electric rates at Martinsville. An amended petition was thereafter filed in which the City of [fol. 267] Martinsville joined as a petitioner. At said time, and at all times prior thereto while plaintiff was furnishing electric service in Martinsville, the plaintiff had on file with said Commission a schedule of rates for electric service at said city approved by said Commission, and which schedule was applicable only at Martinsville.

At all times herein mentioned there was, and now is, in force section fifty-seven of said Act, and which is as follows:

"Upon a complaint made against any public utility by any mercantile, agricultural or manufacturing society or by any body politic or municipal organization or by ten persons, firms, corporations or associations, or ten complainants of all or any of the aforementioned classes, or by

any public utility, that any of the rates, tolls, charges or schedules or any joint rate or rates in which such petitioner is directly interested are in any respect unreasonable or unjustly discriminatory, or that any regulation, measurement, practice or act whatsoever affecting or relating to the service of any public utility, or any service in connection therewith, is in any respect unreasonable, unsafe, insufficient or unjustly discriminatory, or that any service is inadequate or can not be obtained, the commission shall proceed, with or without notice, to make such investigation as it may deem necessary or convenient. But no order affecting said rates, tolls, charges, schedules, regulations, measurements, practice or act, complained of, shall be entered by the commission without a formal public hearing."

Hearings were had on said amended petition at various times by said Commission, and a final order was entered on the 26th day of January, 1929, effective as of February 1st following, fixing the rates and charges for electric service to be collected by plaintiff from its customers in Mar- [fol. 268] tinsville, and which are here complained of.

7. Pending said proceeding before the Commission, plaintiff offered to file and put in effect at Martinsville a trial schedule of optional electric rates. That schedule was approved by the Commission for that purpose on July 9, 1927, and said schedule has been in force at Martinsville since then. Plaintiff's operating revenues from Martinsville electric business have not been reduced under said trial schedule. Its operating revenues from electric rates at Martinsville for the last full calendar year (1926) preceding operation under said trial schedule were $94,238.23. For the first full calendar year (1928) under the trial schedule the corresponding operating revenues were $94,-990.13; and for 1929 they were $99,550.91.

Said trial schedule of rates is, on the whole, higher than the schedule of rates complained of. If the rates complained of had been in effect during the entire year of 1929 they would, by their application to consumer data, have yielded an operating revenue of $84,750.13 for that year. Likewise, they would have yielded an operating revenue of $81,868.72 for the twelve month period ending May 31, 1930.

8. The property of plaintiff that is used and useful for furnishing electric service at Martinsville consists of its local distribution system located in Martinsville, together [fol. 269] with an apportionable part of its said interconnected power system property located outside of the corporate limits of Martinsville. Said power system property is used and useful for furnishing services elsewhere in common with the service furnished by means of it at Martinsville.

Plaintiff's local distribution properties located in cities, towns and communities other than Martinsville are not used or useful for furnishing service in Martinsville.

9. Plaintiff's local electric property in Martinsville had undergone such rehabilitation by the time when preparation was being made for the trial of this suit that the inventory used in appraisals introduced before the Commission were no longer reliable. By joint effort of the engineers representing the adverse parties a new inventory of said local property was made as of May 1, 1930. New appraisals as of that date were made on the basis of the new inventory and introduced in evidence. They were the only appraisals of said local property that were introduced in evidence.

The cost to reproduce new said local electric property in Martinsville, and such cost less accrued depreciation, as of May 1, 1930, is as follows:

	Cost of reproduction	Cost of reproduction depreciated
[fol. 270] Poles, Towers & Fixtures	$20,670	$16,532
Overhead Conductors	12,928	11,636
Services	4,963	3,970
Line Transformers	13,920	11,832
Transformer Installation	1,879	1,597
Consumers Meters	14,977	12,713
Meter Installation	767	652
Office Equipment	2,699	2,159
Shop Equipment	515	412
Transportation Equipment	1,516	970
Laboratory Equipment	564	479
Total land, Plant and Equipment	$75,398	$62,952

to which should be added the following:

	Cost of reproduction	Cost of reproduction depreciated
General contingencies and general overhead	10,964	10,701
Structures and equipment at generating plant at Martinsville devoted only to local use in Martinsville	12,475	10,936
Working cash	.....	3,358
Materials and Supplies	.....	6,500
Going concern value	.....	8,500
Total		$102,947

Said local property was substantially in the same condition and of the same fair value on February 1, 1929, as on May 1, 1930. The fair value of plaintiff's used and useful local electric property in Martinsville was $102,947 on both of said dates, and the fair value of the physical elements of said local property on those respective dates was $84,589.

[fol. 271] 10. The cost to reproduce new plaintiff's said power system property, and such cost less accrued depreciation, as of May 1, 1930, is as follows:

	Cost of reproduction not depreciated	Cost of reproduction depreciated
Generating plants	$516,600	$309,388
High voltage stations	482,467	433,609
High voltage transmissions	986,309	892,877
Carrier current telephone	37,253	31,984
Low voltage sub-stations	14,289	11,423
Low voltage transmission	101,083	66,249
Total land, labor and equipment	$2,138,001	$1,765,530

to which should be added:

	Cost of reproduction not depreciated	Cost of reproduction depreciated
Undistributed construction costs, 15%	320,700	264,800
	$2,458,701	$2,030,330
Capital additions, September 1, 1927 to May 1, 1930	539,065	539,065
to which should be added:		
Working cash		80,000
Fuel Stock		5,000
Material and supplies		162,000
Going concern value		250,000
	$2,997,766	$3,066,395

There were no appraisals of the power system property as of February 1, 1929, placed in evidence. The net additions to said power system property between February 1, 1929, and May 1, 1930, aggregated $444,565.

The fair value of plaintiff's power system property on May 1, 1930, was $3,066,395, and the fair value of the phy- [fol. 272] sical elements thereof on that date was $2,569,- 395. As of February 1, 1929, the fair value of said power system property was $2,621,830, and the fair value of the physical elements thereof on that date was $2,124,830.

11. No cost of financing the reproduction of any of said property would be incurred. Central Indiana Power Company has in the past, and would have on the reproduction dates in question, taken all of the securities issued by plaintiff and furnished it with the necessary capital without any financing cost to plaintiff.

There is no upward trend in prices affecting the value of said properties. There has been a substantial downward trend in copper prices since May 1, 1930, which would tend to reduce the values found herein.

12. The facts concerning the uses to which plaintiff's power system property is devoted under operation by said

common management of the affiliated group, and which are relevant to an apportionment of the fair value of the power system property to Martinsville use, are as follows:

Plaintiff's power system property is located in a group of contiguous counties forming an intervening territory between the territory to the southwest where Indiana Electric Corporation's Dresser plant and radiating transmission lines are located and the territory to the north and east [fol. 273] where the transmission lines and other property of the other affiliated companies are located.

There is annually nearly twice as much current transmitted onto plaintiff's transmission lines from the transmission lines of Indiana Electric Corporation as is required to satisfy the demands of plaintiff's individual customers in its own territory. The excess of this current is transmitted over plaintiff's high tension lines and is delivered principally onto similar lines of Attica Electric Company at Attica and Northern Indiana Power Company at LaFayette for distribution by those companies to their customers in their respective territories. This excess current is so transmitted over plaintiff's lines over a distance of approximately ninety miles. The amount of current manufactured annually at plaintiff's three small generating plants since 1927 has been less than one-fourth of one per cent of the total quantity of current handled on plaintiff's power system property.

In 1929 a total of 84,260,392 K. W. H. was handled on plaintiff's power system property, and only 123,470 K. W. H. were manufactured by plaintiff. Of this total, 2,532,798 K. W. H. were delivered at the Martinsville sub-station onto the local distribution system in Martinsville for local distribution, 6,014,822 K. W. H. were delivered at the Attica sub-station onto the lines of Attica Electric Corporation for distribution to its customers, 30,239,200 K. W. H. were delivered at the LaFayette sub-station onto [fol. 274] the lines of Northern Indiana Power Company for distribution to its customers, 1,354,942 K. W. H. were delivered onto the lines of Indiana Electric Corporation, and the balance was delivered at Plaintiff's other sub-stations for local distribution by it and part was lost in transmission and transformation. In the twelve month period ending May 31, 1930, the total amount of current handled

on plaintiff's lines was 85,295,839 K. W. H., only 77,945 K. W. H. of which were manufactured by plaintiff. Of this total, 2,528,511 K. W. H. was delivered at the Martinsville sub-station, and the remainder was disposed of substantially in the same manner as for the year 1929.

The principal source of this current is the Dresser plant. In 1929 plaintiff received 79,962,702 K. W. H. from Indiana Electric Corporation and for the twelve month period ending May 31, 1930, the amount received from the same source was 84,778,437 Kw. H. A small amount of current is interchanged by plaintiff with Indiana Electric Corporation and with Northern Indiana Power Company. For example, during the twelve month period ending May 31, 1930, 1,585,400 Kw. H. were delivered from the lines of Northern Indiana Power Company onto plaintiff's lines. Similarly, other interchanges of current are made between said affiliated corporations. Monthly settlements are made between the affiliated corporations on net balances of current received at the rate of one cent per Kw. H.

[fol. 275] Plaintiff is charged at the rate of one cent per Kw. H. for all current received by it from Indiana Electric Corporation. Prior to December 1, 1929, plaintiff was credited at the rate of one and a quarter cent- per Kw. H. for the current delivered from its lines at Attica and LaFayette onto the lines of its affiliated companies. Since that date, plaintiff is credited at the same rate it is charged, viz: one cent per Kw. H. for the current actually delivered from its lines onto the lines of its affiliated companies, and the line and transformation losses incident to handling such excess current fall upon plaintiff.

Plaintiff can at all times obtain from Indiana Electric Corporation all current needed by it to supply its customers in its own territory. It is not necessary to the giving of adequate service by plaintiff that it receive any current from Attica Electric Corporation or Northern Indiana Power Company, and it has in the past received but little current from those companies. There is no substantial or necessary use of the power system properties of Attica electric and Northern Indiana Power Companies for furnishing service to plaintiff's customers in reciprocation of the use made of plaintiff's property for furnishing service by those companies to their respective customers. Plain-

tiff's power system property was planned, constructed and is operated by said common management for the use of the customers of said affiliated companies as well as for [fol. 276] the use of plaintiff's customers, and the same is operated as a part of said affiliated system of properties for the benefit of said affiliated companies as well as for the benefit of plaintiff.

The current delivered at the Martinsville sub-station comes either over plaintiff's high tension line running to Martinsville from Indiana Electric Corporation's Lenore sub-station near Indianapolis, or over another of plaintiff's lines running from said Corporation's Cloverdale sub-station to Spencer and Martinsville. Plaintiff's high tension line running from Clinton to Attica and LaFayette, and over which most of said excess current is delivered to affiliated companies, is not necessary for furnishing adequate service at Martinsville.

13. The ratio of sub-station deliveries at Martinsville to total sub-station deliveries made by plaintiff in 1929 is 3.34%. In the same year the ratio of actual sales made to customers in Martinsville to plaintiff's total sales, inclusive of the current delivered at Attica and LaFayette, is 3.027%. The ratio of Martinsville peak demand in 1929 to plaintiff's system peak demand in the same year, but occurring on different days in the year, is 3.01%.

There are included in plaintiff's entire power system property, as the same has hereinbefore been appraised and [fol. 277] valued, isolated transmission lines also branch lines and sub-stations which are not directly used and useful for transmitting current to Martinsville.

An apportionment of power system property to Martinsville used on the basis of 3.30% of its fair value is reasonable and fair.

That percentage of the February 1, 1929, fair value ($2,621,830) is $86,520.39, and of the May 1, 1930 and subsequent fair value ($3,066,395) it is $101,191.00. These apportioned values together with the fair value of the local property ($102,947.00) constitute the total fair values of plaintiff's electric property used and useful for furnishing service at Martinsville at said respective times. Thus determined, the total fair value at February 1, 1929, was $189,467.39, and at May 1, 1930 and since, it is $204,138.00.

The fair value of the physical elements of said property, similarly determined, at February 1, 1929 (apportioned $70,119.39 and local $84,589) is $154,708.39, and at May 1, 1930 and since it is (apportioned $84,790 and local $84,589) $169,379.00.

14. A return at the rate of 7% per annum on said total fair value is a fair return.

A composite rate of 4% per annum on the fair value of the physical elements of said property is sufficient for the depreciation requirements of said property.

[fol. 278] 15. The cost of the current delivered in 1929, and since, at the Martinsville sub-station for local distribution in Martinsville is $.0133 per Kw. H. This cost includes the purchase price of one cent and all other power system expenses, except annual depreciation.

A charge to operating expenses against the revenues from the rates complained of in the amount of $400 per year for ten years, as fixed and allowed by the Commission, is a sufficient allowance to such operating expenses on account of expenses reasonably occasioned by this rate inquiry.

For the twelve month period ending May 31, 1930, the expenses chargeable to such operating expenses and annual depreciation were as follows:

Power—2,528,511 Kw. H. @ $.00133	$33,629.20
Other expenses, including taxes	20,624.18
Rate case expense	400.00
Annual depreciation (4% of $169,379.00)	6,775.16
Total	$61,428.54

There would have been available for return for said twelve month period $20,440.18 out of the total operating revenues of $81,868.72 which the rates complained of would have yielded if in force during said period. This would have made a return for that period of slightly more than 10% on said fair value of $204,138.00.

[fol. 279] For the calendar year of 1929 the total operating expenses, including annual depreciation, were $62,250.54. There would in that year have been available for return $22,499.59 out of the total operating revenue of $84,750.13

which the rates complaint of would have produced if then in force. This would have made a return for 1929 of more than 11% on said fair value of $204,138.00, and would have made an even greater rate of return on the February 1, 1929 fair value of $189,467.39.

16. The rates complained of, if in force at Martinsville, would at all time since February 1, 1929, have produced, and would now produce, sufficient operating revenues to pay all operating expenses, taxes, amortized rate case expenses and annual depreciation chargeable against said revenues, and a fair return of more than 7% per annum on the fair value of plaintiff's electric property to the extent that the same is used or useful for rendering the electric service to which said rates apply.

17. The facts found by the Special Master as they are stated in his report filed herein are true.

(Signed) Will M. Sparks, Judge. Robert C. Baltzell, Judge. Thomas W. Slick, Judge.

February 26, 1932.

[fol. 280] CONCLUSIONS OF LAW

Upon the foregoing facts the Court concludes the law to be as follows:

1. Each of plaintiff's exceptions to the Master's report should be overruled.

2. The evidence and the facts in evidence fail to show that the rates complained of are insufficient to yield a fair return on the fair value of such of plaintiff's property as is used and useful for rendering electric service in the City of Martinsville to the extent that the same is so used and useful.

3. The rates complained of are sufficient to yield a fair return on the fair value of such of plaintiff's property as is used and useful for rendering electric service in the city of Martinsville to the extent that the same is so used and useful.

4. The law in this case is in all things with the defendants.

5. Neither the order of the Public Service Commission of Indiana nor the rates complained of violate any rights of [fol. 281] the plaintiff under the constitution or laws of the United States.

6. Plaintiff's bill of complaint is without equity and should be dismissed.

7. The temporary injunction issued herein enjoining the rates complained of pending final hearing should be dissolved and plaintiff should make refunds in accordance with the terms of said temporary injunction of any sums it may have collected from its electric customers in the City of Martinsville in excess of the rates complained of.

8. That defendants are entitled to recover of and from plaintiff their respective costs made, laid out and expended herein.

Dated at Indianapolis, Indiana, on the 26" day of February, 1932.

Will M. Sparks, Judge. Robert C. Baltzell, Judge. Thomas W. Slick, Judge.

[fol. 282] In United States District Court

Decree—February 26, 1932

The plaintiff now separately and severally excepts to each finding of fact and each conclusion of law.

This cause coming on now to be finally heard by the Court, and the parties appearing by their respective solicitors, and the Court having heard the evidence and plaintiff's exceptions to the report of the Special Master and the argument of Counsel, and being sufficiently advised in the premises, each of said exceptions to said report is now overruled by the Court.

It is now ordered, adjudged and decreed by the Court that the equity of this cause is with the defendants.

It is thereupon ordered, adjudged and decreed by the Court that the temporary injunction issued herein be, and the same is hereby dissolved. It is further ordered, adjudged and decreed that, in accordance with the terms of said tempo-

rary injunction the plaintiff shall within 90 days after the date of this decree, or in case of appeal from the date of affirmance thereof, refund to its customers, or credit to their respective accounts, all sums of money which it may have collected from them in excess of those which it would have collected under the schedule of rates complained of in its bill of complaint.

It is further ordered, adjudged and decreed that the plaintiff pay to the defendants their costs and charges laid out and expended herein, taxed at $—.

And it is further ordered, adjudged and decreed by the Court that the bill of complaint herein be, and the same is [fols. 283 & 284] hereby, dismissed for want of equity, and that jurisdiction of this cause be, and hereby is, reserved in this Court for the purpose of enforcing this decree.

It is further ordered, adjudged and decreed that if an appeal be allowed to the plaintiff from this decree within three months from the date of said decree, and the plaintiff shall execute and file a bond in the sum of $60,000.00, conditioned that the plaintiff will prosecute its appeal with effect and shall pay all damages and costs that may be awarded against it if it fails, and in the event the electric rates for the city of Martinsville fixed by the order entered by the Public Service Commission of Indiana on January 26, 1929, become effective upon final hearing and determination the plaintiff shall refund to its customers respectively or credit to their respective accounts any sums collected by the plaintiff in excess of the rates and charges fixed by said order, the temporary interlocutory injunction heretofore granted by the court shall be and hereby is restored and continued in force in order to maintain and preserve the status quo pending the appeal to the United States Supreme Court and until further order of this court. During the three months period allowed plaintiff for taking its appeal, it may bill its customers under the rates heretofore applied in lieu of the rates complained of.

[fols. 285 & 286] IN UNITED STATES DISTRICT COURT

[Title omitted]

PETITION FOR APPEAL—Filed May 10, 1932

To the Honorable Robert C. Baltzell, Judge of said District Court:

Your petitioner, Wabash Valley Electric Company, who is the plaintiff in the above entitled cause, prays that it may be permitted to take an appeal from the decree entered on the 26th day of February, 1932, at the November, 1931, term of said court, on a hearing and determination by the Honorable William M. Sparks, Circuit Judge; the Honorable Robert C. Baltzell, District Judge, and the Honorable Thomas W. Slick, District Judge, in accordance with the provisions of section 266 of the Judicial Code, to the Supreme Court of the United States for the reasons specified in the assignment of errors which is filed herewith.

And your petitioner desires that said appeal shall operate as a supersedeas, and therefore prays that an order be made fixing the amount of security which said petitioner shall give and furnish upon such appeal, and that upon giving such security all further proceedings in this court be suspended and stayed until the determination of said appeal by the Supreme Court of the United States.

Dated this 10 day of May, 1932.

John C. Sawyer, Cooke, Sullivan & Ricks, Howard S. Young, Fesler, Elam & Young, Attorneys for Petitioner.

[fol. 287] IN UNITED STATES DISTRICT COURT

[Title omitted]

ASSIGNMENTS OF ERROR—Filed May 10, 1932

Comes now the said Wabash Valley Electric Company, plaintiff, and files the following assignment of errors upon which it will rely in the prosecution of the appeal in this case, and says that in the record, proceedings and decree entered herein, manifest error has intervened to the prejudice of the plaintiff in this, to wit:

1. The court erred in holding that, for the purpose of determining the validity of the rates for electrical service prescribed in the order of the Public Service Commission of Indiana entered January 26, 1929, the plaintiff's Martinsville property should be considered as a segregated unit and separated from the remainder of the operating unit of which it is an integral physical and economic part, in this, to wit:

(a) Plaintiff's electrical property is a single physical and economic system, interconnected throughout, which supplies electrical energy to the public residing in towns, cities and communities located on that system, and every portion of that property of whatever description or wherever located is used and useful for furnishing service to that public; and the court erred in finding that the only property used and useful for furnishing electrical service in Martinsville consists of the local distribution system located in Mar- [fol. 288] tinsville, together with an apportionable part of the interconnected power system property (i. e. electrical transmission lines and facilities) located outside the corporate limits of Martinsville, and in finding that plaintiff's local distribution properties located in cities, towns and communities other than Martinsville are not used and useful for furnishing service in Martinsville and should be excluded from the rate base in this case.

(b) The court erred in overruling exception No. 18 taken by the plaintiff to that part of the report of the special master finding that the whole of plaintiff's used and useful electrical property should not be considered the rate base in this case.

(c) The validity of plaintiff's rates in any part of its interconnected electrical system should be tested by the effect of such rates upon plaintiff's entire electrical net revenue applied to the value of the used and useful property in its entire interconnected electrical system, and the court erred in overruling exception No. 17 taken by the plaintiff to that part of the report of the special master holding that the rates should not be so tested.

(d) The court erred in overruling plaintiff's exception No. 16 to that part of the report of the special master find-

ing that plaintiff's customers should not be required to pay rates sufficient to pay all operating expenses, depreciation and return on plaintiff's power system property (i. e. electrical transmission lines and facilities) as the same exists and is being used.

(e) The statutes of Indiana do not provide that a municipality shall be treated as a segregated unit for the purpose of determining the validity of the rates for electrical service supplied to the public and the court erred in finding that the statutes of Indiana so provide and in overruling exception No. 18 taken by the plaintiff to that part of the report of the special master so finding.

[fol. 289] (f) If the statutes of Indiana are to be construed as so providing, the court erred in applying them to this case, because such statutes are unconstitutional and void as applied to this case, in that they would require a separation of plaintiff's Martinsville property from the remainder of the operating unit of which it is in fact an integral physical and economic part and thereby exclude from the rate base applicable to Martinsville, property actually used and useful in supplying electrical energy to plaintiff's Martinsville customers.

2. If segregating plaintiff's Martinsville property from the remainder of plaintiff's electrical system was not error, nevertheless the court erred because it did not make a proper allocation of the property outside Martinsville, and did not properly determine the cost of electrical energy delivered at the Martinsville substation for distribution to Martinsville customers, in the following particulars, to wit:

(a) In allocating the portion of the power system property used and useful in supplying electrical energy to the public at Martinsville, by an approximation based on: the ratio of kilowatt hours of electrical energy sold by the plaintiff to Martinsville customers for the year 1929, to the total kilowatt hours of electrical energy sold by the plaintiff during the year 1929, including deliveries to other utilities; the ratio of Martinsville substation output for 1929, to the total output of all substations of plaintiff for the year 1929, and the ratio of Martinsville peak demand in 1929 to plaintiff's system peak demand in the same year, but occurring on different days of the year; and on that

basis finding that 3.30 per cent of the fair value of the power system property (i. e. $101,191, which is 3.30 per cent of $3,066,395) was a fair and proper portion to be allocated to Martinsville use, and in overruling the plaintiff's exception No. 13 to that part of the report of the [fol. 290] special master so holding, when in fact, if any allocation should have been made, the deliveries to other utilities aggregating approximately 50 per cent of said total deliveries should have been excluded and not less than 6.63 per cent of the power system property (i. e. $241,176, which is 6.63 per cent of $3,637,650) should have been allocated to Martinsville as used and useful in supplying electrical energy to the public in Martinsville.

(b) In finding that the cost of electrical energy delivered at the substation at the city of Martinsville for local distribution in Martinsville, except annual depreciation, was $.0133 per kilowatt hour; and in finding that a fair and adequate "gateway" rate for Martinsville (i. e. cost of electrical energy delivered at the substation at Martinsville for distribution in Martinsville) is $.018 per kilowatt hour, and in overruling plaintiff's exception No. 12 to that part of the report of the special master so finding, whereas said cost so determined was only an average figure and not the actual cost of energy delivered at said substation, which actual cost was in fact not less than $.024996 per kilowatt hour.

(c) In overruling plaintiff's exception No. 14 to that part of the report of the special master finding that deliveries by plaintiff of electrical energy to affiliated utility companies should not be eliminated in determining the proportion of the power system property value, cost of electrical energy and power system expense to be allocated to Martinsville.

(d) Even if the court's method of allocation of power system property and expense was otherwise correct, the court erred in failing to segregate and allocate on the basis of actual use the specific physical portions of the power system property actually used in making deliveries to other utilities and the expense actually incurred in making such deliveries, before determining the gateway cost of energy at the Martinsville substation and allocating power

system property to Martinsville; which segregation and [fol. 291] allocation show a cost of energy at the Martinsville substation of not less than $.022897 per kilowatt hour compared with $.018 found by the court.

3. The court erred in finding the value of plaintiff's used and useful property in the following particulars:

(a) In overruling exception No. 5 taken by the plaintiff to that part of the report of the special master finding that the fair value of plaintiff's entire electric property used and useful in serving electrical energy to the public was $4,594,887, when it was in fact of the fair value of not less than $5,556,091.

(b) In finding that the fair value of the physical elements of plaintiff's power system property (i. e. depreciable property) was $2,569,395; and that the fair value of the power system property as a whole actually used and useful in the public service was $3,066,395, and in overruling plaintiff's exceptions Nos. 3 and 4 to that part of the report of the special master finding the value of said property; when the fair value of said depreciable property was not less than $2,830,049, and said power system property as a whole was in fact of the fair value of not less than $3,637,650.

(c) In finding that the fair value of the physical elements of plaintiff's local property (i. e. depreciable property) in Martinsville used and useful in the public service, was $84,589; and that the fair value of plaintiff's local property as a whole in the city of Martinsville, actually used and useful in the public service was $102,947, and in overruling plaintiff's exceptions Nos. 1 and 2 to that part of the report of the special master finding the value of said property; when the fair value of said depreciable property was not less than $100,659, and the said local property as a whole was in fact of the fair value of not less than $135,402.

(d) In finding that the fair value of the physical elements of plaintiff's property (i. e. depreciable property) [fol. 292] used and useful in the public service in the city of Martinsville was $169,379; and that the fair value of plaintiff's electrical property as a whole used and useful

in the public service in supplying the public of the city of Martinsville with electrical energy was $204,138, and in overruling plaintiff's exceptions Nos. 13 and 15 to that part of the report of the special master so finding, when in fact if any allocation should have been made the fair value of said depreciable property was not less than $288,768, and said used and useful electrical property as a whole was in fact of the fair value of not less than $376,502.

(e) In overruling plaintiff's exception No. 10 to that part of the report of the special master finding that the value of plaintiff's three generating plants was $309,388, when they were in fact of the fair value of not less than $424,282.

(f) In determining the fair value of the used and useful property of plaintiff devoted to the public service on the basis of the testimony of the witness Abbett as to reproduction cost thereof, less observed depreciation, without giving proper consideration and weight to the evidence of the plaintiff's witnesses as to reproduction cost and observed depreciation, or to any of the evidence as to original cost of construction, the present as compared with the original cost of construction, the amount expended in permanent improvements, the amount and market value of its bonds and stocks, the probable earning capacity of the property as a single, interconnected operating unit, and the sums required to meet operating expenses.

(g) In overruling plaintiff's exception No. 8 to that part of the report of the special master finding that the unit prices used in making up the appraisal of the Stone and Webster Engineering Corporation are too high and that the amounts added thereto for general construction costs are unwarranted, and that its allowance for organization, working capital, cost of financing and going value is [fol. 293] exorbitant and unreasonable in each case; and in overruling plaintiff's exception No. 11 to that part of the report of the special master finding the unit prices adopted and used by the witness Abbett and his deduction for observed depreciation are fair and reasonable, when in fact his unit prices are too low and his deduction for observed depreciation is excessive.

(h) In finding that no cost of financing would be incurred in reproducing any of said property and in refusing to allow anything therefor; and in overruling plaintiff's exception No. 7 to that part of the report of the special master which finds that in fixing values of plaintiff's property for the purpose of this case, nothing should be included for cost of financing.

4. The court erred in finding that only $4,000 should be charged to operating expenses for the expenses of this rate case and in overruling plaintiff's exceptions Nos. 19 and 20 to that part of the report of the special master so finding, when the actual expenses were shown to be in excess of $60,000.

5. The court erred in finding that a return of 7 per cent upon the fair value of the property used and useful in the public service is a reasonable return and in overruling plaintiff's exception No. 21 to that part of the report of the special master so finding, when in fact a return of not less than 8 per cent should have been allowed in order to avoid confiscation of plaintiff's property.

6. The court erred in overruling plaintiff's exceptions Nos. 22, 23, 24 and 25 to that part of the report of the special master finding the net return which the rates complained of would have produced and that said rates would have yielded a fair rate of return; when in fact the net return would not have exceeded $6,121.10 and the rate of return would have been less than a fair and reasonable rate of return and would not have exceeded five per cent.

[fol. 294] 7. The court erred in overruling plaintiff's exceptions Nos. 27, 28, 29 and 30 to the conclusions of the master, that the rates are not confiscatory and do not take plaintiff's property without due process of law; that the enforcement thereof should not be enjoined, that the temporary injunction should be dissolved, and that the bill should be dismissed for want of equity; in entering its final decree dismissing plaintiff's bill for want of equity; and in failing and refusing to enjoin the enforcement of the order of the Public Service Commission of the State of Indiana entered January 26, 1929, on the ground that the electrical rates prescribed in said order are confiscatory of plaintiff's property, deprive the plaintiff of its property without due

process of law and deny it the equal protection of the law, contrary to the Fourteenth Amendment to the Constitution of the United States.

Wherefore plaintiff prays that the decree may be reversed and for such other and further relief as to the court may seem just and proper.

Dated this 10 day of May, 1932.

John C. Sawyer, Cooke Sullivan & Ricks, Howard S. Young, Fesler, Elam & Young, Attys. for Ptff.

[fols. 295-300] In United States District Court

Order Allowing Appeal—May 10, 1932

The petition of Wabash Valley Electric Company, plaintiff in the above entitled cause, for an appeal from the final decree herein is hereby granted and appeal is allowed to the Supreme Court of the United States, and upon the plaintiff filing a bond in the sum of Three Thousand ($3,000.00) Dollars with sufficient sureties and conditioned as required by law, the same shall operate as a supersedeas of the final decree made and entered in the above cause and shall suspend and stay all further proceedings in this cause until the termination of said appeal by the Supreme Court of the United States.

Plaintiff now files its appeal bond herein in the penal sum of Three Thousand ($3,000.00) Dollars, and the same is now in all respects approved by the court, which said bond is as follows:

* * * * * * *

[fol. 301] In United States District Court

Minute Entry—May 10, 1932

Citation is now ordered, signed and issued by the court.

The plaintiff now also files condensed statement of the evidence, which is signed and approved by the court, and is as follows:

[fols. 302 & 303] [File endorsements omitted]

[fol. 304] IN UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF INDIANA, INDIANAPOLIS DIVISION

In Equity. No. 1178

WABASH VALLEY ELECTRIC COMPANY, Plaintiff-Appellant,

vs.

FRANK T. SINGLETON, et al., Defendants-Appellees

Condensed Statement of Evidence as Required by Equity Rule 75—Filed May 10, 1932

CAPTION

Be it remembered that the above entitled cause in chancery was heard before a special master and that the evidence herein was taken and reported by said special master and filed herein July 2, 1931, and is the only evidence heard and considered by said special master or by the court, and the following is a condensed statement of the material parts thereof, to wit:

September 2, 1930.

L. B. ANDRUS, witness for plaintiff, testified:

Witness has been president of Wabash Valley Electric Company since 1924 and resides in Indianapolis, Indiana. Prior to 1924 witness had general supervision of utility operations for American Public Utilities Company and the Wabash Valley Company and also general supervision of utility construction in Indiana from 1917 to date. From 1903 to 1916 witness had general supervision of construction and operation of electric utilities with the Indiana and Michigan Electric Company at South Bend.

In 1921 and 1922 a survey was made of the territory near Indianapolis and it was found that sufficient water could not be obtained to operate an electric generating station. [fol. 305] Within certain limits, up to 600 or 700 tons of water per ton of coal burned, the increased volume of water lessens the fuel consumption. The condensation of the water creates a vacuum which creates a pull in one direc-

tion on the machine and materially aids the push of the steam on the opposite. It was found that the nearest adequate supply of water was either the Ohio River or the Wabash River. Options were secured on properties some of which are now a part of the Wabash Valley Electric Company. Other properties were secured which now comprise part of the Northern Indiana Power. The purpose was to get together a group of properties with a sufficient load and income to make commercially expedient the location of a power plant on the Wabash Siver. The rapid increase in industrial loads has made necessary large centralized power plants rather than small unassociated and comparatively inefficient local plants. The territory served by the Wabash Valley Electric Company contains a number of small towns and a great many coal mines and gravel pits which carry a large potential electrical load. At present over 50% of the kilowatt hours sold to individual meter customers by the Wabash Valley is furnished for industrial uses outside of municipal boundaries. The general practice of electrical engineers has been to interconnect electrical generating plants and electric distribution companies in such a way that each system will act as a reserve for the others in case of emergency. This interconnection insures better service to the consumer at a lower cost because each single generating plant is no longer required to carry reserve capacity in the way of extra generators, and in the event that one generating plant breaks down one of the others can temporarily assume the load until repairs can be made. During the current summer different communities in Indiana dependent upon local generation, had difficulty in maintaining efficiency owing to the diminution in the flow of small streams and the relatively high temperature of the water.

Plaintiff's Exhibit 1 indicates the electrical transmission system. No. 10 on Exhibit 1 indicates the Dresser plant [fol. 306] placed in operation in 1924. It is connected at Clinton and has a line connecting at Cloverdale and at Sullivan. It has a transmission line to a point directly south of Indianapolis at Lenore Substation and then feeds back west into the Wabash Valley system at Bainbridge. At Lafayette the line of the Northern Indiana Power Company is connected through Kokomo to the large steam plant

at South Bend, Indiana. The Columbia plant on the Ohio River is run into the Lenore Substation and is there connected to the lines going to Bainbridge, Martinsville and Spencer.

The plant at South Bend is known as the Twin Branch plant and became necessary when the load grew greater in 1929. It is contemplated in 1930 that the line from Michigan City will come by way of Plymouth to Lafayette. The system is already connected to the state line plant in Indiana just east of the Illinois state line which is the largest generator which has been built anywhere and is capable of 200,000 kilowatts production. The bulk of the electricity available for the Wabash Valley system is generated either at the Columbia plant on the Ohio River, the Dresser plant on the Wabash River, or the Twin Branch plant on the St. Joe River. Additional and supplementary generation is available at Kokomo where Northern Indiana Power Company has a plant under steam at all times, and at plants in Clinton, Sullivan and Martinsville, which are essentially local generating plants. Plaintiff's three generating plants at Martinsville, Sullivan and Clinton are steamed up and put in service at times of maximum load on the system, for system convenience and necessity, not for the cities in which they are located. They are used only at such times when additional current is needed for a short period such as occurs in the fall months when the lighting load comes on before the power load is off. These small local plants, although relatively inefficient, may be economically utilized when operated only for a short period during each year. The investment is already there and it is much cheaper to use them than to build another transmission line back to [fol. 307] one of the big plants which would create a burden throughout twelve months of the year for the reason that the contracts provide that if a call is made on the central generating plant for additional capacity other than that provided for in the contract then a fixed charge based on that additional capacity must be paid for the remainder of the life of the contract. The only exception to this rule is the Columbia plant at Cincinnati which has some excess capacity and at present for one year only has contracted so that any excess current required will operate as a penalty only for the month in which it is drawn. The de-

mand charge is a fixed charge which must be paid whether or not any or all of the current is utilized. Sufficient equipment must be provided to take care of the maximum amount of current which may be required at any one moment during the whole year even if such a load is reached for a day only.

In addition to being president of Wabash Valley Electric Company, witness is president of Indiana Electric Corporation, Attica Electric Company, Northern Indiana Power Company, also of six or seven smaller interconnected companies, and vice president of two or three, in this territory. He is responsible for the operation and power supply of each and all of the interconnected companies in the loop shown on Exhibit 1.

At present the Wabash Valley is delivering electrical energy to the Northern Indiana Power Company at Lafayette. Also occasionally the Wabash Valley Electric Company obtains electricity from the Northern Indiana Power Company and the Indiana Hydro Electric Company at Lafayette. This system of interchange is paid for by each company on the same basis, the settlement of balances being largely made through book entries. About two and one-half million kilowatt hours a month are purchased regularly from the Twin Branch plant at South Bend, some of which is transmitted to the Wabash Valley at Lafayette and sent south. When the Michigan City plant is put in operation about the first of the year the current flow will be reversed and will feed south, thus releasing the current [fol. 308] from the Dresser plant near Terre Haute which will be transmitted elsewhere. There have been interruptions which have necessitated, since 1929, some twenty-five instances in which current has been transmitted south from Clinton to Lafayette and but for the interconnection outstages would have occurred. The 66,000 volt line north from Clinton to Lafayette serves substations at Cayuga, Covington, Veedersburg and Newton, which serve customers of the Wabash Valley Electric Company proper. There is also a substation at Attica where current is furnished for customers of the Attica Electric. Electricity delivered to the Northern Indiana Power Company at Lafayette is delivered at 66,000 volts, the same voltage as the electricity received from the Indiana Electric Corporation at Clinton. For the same load the loss is less at 66,000 volts than at a

lower voltage. In order to deliver current to the so-called town gateways it is necessary to transform a high voltage current to the voltage which is used in the community. Plaintiff does not supply electricity to the city of Lafayette. The transformation and line loss averages 10% and 12% while the strictly line loss averages about 3%. The current delivered to the Northern Indiana Power Company is delivered at 66,000 volts without any transformation, hence all transformation losses are assumed by Northern Indiana Power Company. Even without the sale of electricity north to the Northern Indiana Power Company, or any other person or corporation, in witness' opinion, the line from Clinton to Lafayette would be required for the Wabash Valley because of the advisability of having each line so tied in that two sources of current are possible. With power coming into a network from common sources the costs must be taken collectively and rates must be established which will permit essentially the same charge to the Northern Indiana Power Company customers and those of the Attica Company as is made to the customers of the Wabash Valley Electric Company. If a prohibitive rate should be charged the Northern Indiana Power Company they could purchase from some other source, and because of competition the current can be obtained elsewhere, at the same price that is now in effect. [fol. 309] When the power was brought into Kokomo from the north the rate was reduced in the northern section to one cent to correspond to the one cent rate in the southern section. Originally the rate in the north was one and a quarter cents per kilowatt hour. The one cent rate is a fair and reasonable price considering the fixed charges. Interest, depreciation and taxes amount to a fixed sum every year whether the plant is run or not. If a plant can secure a load which will keep it in operation 25% of the time it is said to have a load factor of 25%. If the plant can secure additional daylight consumers, such as street railway companies, when it would otherwise be idle, and can operate 50% of the time, its fixed charges will be no greater but it will have twice the number of kilowatt hours over which to pro rate the fixed charges. Therefore, the cost per kilowatt hour will be about half of what it would be at a 25% load factor. As a result current can be fur-

nished to the average industrial manufacturing concern which has a load factor between 25% and 35% at a lower price than if the concern had only a 10% load factor. The town of Martinsville carries primarily a lighting load which is very low as compared with an industrial load. It is the industrial power load which has increased the load factor and made it possible to reduce rates. The cost per kilowatt hour outside of the municipalities is less than the cost per kilowatt hour delivered to the city gateway because the load factor outside is much better than the load factor inside the cities. A city or town in the Wabash Valley system benefits from both the internal and external economies resulting from the power network because of the increased load factor resulting from industrial and street railway loads which provide daylight and Sunday consumption of current. In fixing rates, all of the costs have been considered collectively and since distribution to the different communities must be done in some way to avoid discrimination it has been attempted to make similar rates for similar classes of service in cities of the same size. The utilities' position under this system, with power from common sources coming into interconnected transmission lines, is that costs and investments and rates must be considered [fol. 310] collectively, and that ratemaking is the function of the management. Where it takes the whole group to furnish the service the rates should not be very diverse for the same classes of service in cities of the same size.

The 33 K. V. line from Lenore substation to Martinsville shown in green on Exhibit 1 was taken down and plaintiff has built a 66,000 volt line between these points. The transmission loss on this line should not be as great as on the Clinton-Lafayette line because it is shorter. The current that comes to Martinsville over the line from Lenore substation is fed into that substation over lines of the affiliated system carrying current from the Dresser, Columbia, Kokomo, and Twin Branch plants and from Fort Wayne. Martinsville can be served, in case of breakdown, over a 66,000 volt line of Interstate Public Service Company coming up from Bloomington and connected with that Company's Edwardsport plant. That Company's lines and plants are operated in common with the operation of the lines and plants of the affiliated companies.

If one city in the Wabash Valley system were picked out it would be impossible to consider rates in respect to that one city without also considering all of the communities served by the Wabash Valley. In addition to the two 66,000 volt lines one from the north and one from the south which come to Martinsville, there is a line coming from Greencastle south to Spencer and across through Gosport and Paragon to Martinsville which is a 33,000 volt line. There is another line connecting Martinsville at Worthington from the Edwardsport plant, which is a 33,000 volt line. However, satisfactory service has been rendered only since the 66,000 volt line has been utilized, there being only four interruptions in the past eight months as compared with twenty-five in the previous period of eight months. The power system property of plaintiff was not conceived for only its purposes. All of the units of these affiliated companies were conceived as a whole. Plaintiff's transmission lines were conceived and erected as a comprehensive part of the whole power [fol. 311] distribution systems of the affiliated companies. The power lines of the Wabash Valley system are designed to coincide with a system comprised of all the affiliated companies plus the Wabash Valley. The line from Clinton to Lafayette would probably not require so large a copper conductor if it were serving only the communities along the line without any industrial consumers, but the same size transformer stations and poles and the same amount of attendance and patrolling and maintenance would be required. As to the question of voltage a rule of thumb is about a thousand volts to the mile. It is about 90 miles from Clinton to Lafayette and a 33,000 volt line would not be put up for a 90 mile transmission.

Current is metered as it leaves one company's property and goes to another. Those readings are washed out and the differential is settled for at one cent. It is a bookkeeping procedure. The one cent price is fixed by the witness. There is no written contract in effect between the companies on interchange of current. The interchange goes right on. If the companies make a pull down on plaintiff, the current flows in. There is no order directing the flow of current, and no contract fixing the price of interchanged current. In 1930 there were about 35,000,000 kilowatt hours delivered over plaintiff's Clinton-Lafayette line to Attica Electric Company and Northern Indiana Power Company. This

current normally gets on this line at Clinton from the Dresser plant, but if the plant is down it could feed back from Lenore. Roughly speaking, about 35,000,000 kilowatt hours were delivered to the Attica Company and the Northern Indiana Power Company during 1930, which is paid for at the rate of one cent irrespective of its source. Plaintiff generates no power except a very small amount at its three small plants during the peak, and buys practically all of its current. Its lines are simply used as a conduit. The compensation of the Wabash Valley is only indirect in that the other companies transmitting current to the Wabash Valley do not make any profit off of the Wabash Valley.

[fol. 312] If Northern Indiana Power Company and the Dresser plant want to exchange electricity, they do it over plaintiff's transmission lines, and plaintiff gets nothing from either of the companies for the use of its transmission lines, and neither do the other companies get anything from plaintiff. The State Line Company at Hammond is an Insull Company, so is Interstate Public Service Company.

In the event that one of the power sources should break down it would be necessary to transmit current from one of the other sources and the line from Lafayette to Clinton might be used in such a situation.

The property of plaintiff shown on Exhibit 1 consists of local plants with some lines purchased by plaintiff, together with lines erected by it since. The question of what should be charged by the Wabash Valley Electric Company to other companies for electricity delivered to them over its lines has never been taken up with the Public Service Commission of Indiana for the purpose of having the rate fixed. If a whole new system were to be planned, with the Wabash Valley Electric Company to serve the territory which it is now serving, the small local plants at Martinsville, Sullivan and Clinton would not be built at these specific locations, probably one centrally located as an auxiliary plant would be more efficient. The local generating plant at Martinsville once served that city and some adjacent territory, and Martinsville then had no other source of electricity.

About 85,000,000 kilowatt hours are handled on plaintiff's system in a year, of which about 35,000,000 go to Attica Electric Company and Northern Indiana Power Company, leaving 50,000,000 to plaintiff. The Wabash Valley purchasing current at one cent per kilowatt hour and furnishing current

to some other concern at one cent per kilowatt hour assumes a line loss of 3%, but the transmission of this current over the line does not increase the cost of keeping up the line over what it would cost the Wabash Valley if it were using the line only for its own customers. The Wabash Valley customers [fol. 313] are assured better service in that current may be gotten from two directions.

Plaintiff has been paying one cent per kilowatt hour for the current purchased by it since 1924. Until December 1, 1929 plaintiff received one and a quarter cents for the current delivered to affiliated companies at the north end of its lines, but since December 1, 1929 it gets exactly the same rate as it pays.

The current delivered to the city of Martinsville is metered on the low side of the transformer at the substation which creates a transformation loss for the Wabash Valley Electric Company which does not exist in the case of deliveries at Lafayette from the Northern Indiana Power. The Interstate Public Service Company common stock is not held by the same person who holds the Wabash Valley common stock, but both are subject to the same general supervision.

Plaintiff's line running south to Spencer is hooked up with Indiana Electric Corporation's lines at Cloverdale, Bainbridge and Clinton. The small local plant at Sullivan will be discontinued but the plants at Clinton and Martinsville will be kept in operation and used as needed. With the character of lines that are actually constructed, it is economically impossible to transmit electricity from the State Line plant in Lake county to the Interstate Service Company, in the southern part of Indiana. As a result of its interconnected lines which enable it to serve a large territory, the Wabash Valley gets the benefit of a load factor which lowers the cost of production of electric energy and permits a lower rate. This benefit accrues by virtue of the one cent per kilowatt hour exchange arrangement with the various generating plants.

Plaintiff and Indiana Electric Corporation are Insull companies. Witness refers to companies whose lines comprise the system shown on Exhibit 1 and whose names appear at the bottom thereof as affiliated companies. Other companies mentioned are not affiliated in the same sense of com-

mon stock ownership. The foreign lines referred to on Exhibit 1 are owned by other companies whose common stock ownership is not in the same place.

[fol. 314] Utility Service Company, no longer in existence, was a clearing house operated at no profit, which paid the salaries of the general officers of the affiliated companies and prorated them back to the various companies. This is now done through Indiana Electric Corporation, which owns the Dresser plant. Witness, as president of the affiliated companies, exercised general supervision of their operation. He gives final approval for the different companies as to where they build lines. The question of where plaintiff buys its electricity is determined by the ownership of the lines. There is a committee, including the engineer and operating forces of the affiliated group, that is in charge of the operation of the whole group. This committee makes recommendations on such questions as where plaintiff should purchase its current, and the officers pass on them finally. The Dresser plant is in position to furnish as much electricity as it has in the past. Plaintiff pays Indiana Electric Corporation in money for the current received from the Dresser plant. Constructively, from an operating standpoint, the whole is one system, but because of the existence of different companies it is necessary to have a figure for bookkeeping purposes. This same plan has been followed generally through Indiana and elsewhere east of the Mississippi River. When the Wabash Valley Electric was selling current to the Attica Company and the Northern Indiana Power Company at one and a fourth cents per kilowatt hour it was making a book profit of some $87,000 a year, assuming that 35,000,000 kilowatts were sold in this manner. Plaintiff is getting its current no cheaper since the price it receives for current it delivers to other companies was reduced to one cent. Witness thinks a benefit to plaintiff could be computed to offset the reduction of the price of current delivered by it from one and a quarter cents to one cent if a specific set of conditions were named, but that he cannot name them.

There was a period during which the Martinsville plant was not used because the Dresser plant had been overbuilt owing to the fact that it was cheaper to put in three 20,000 [fol. 315] Kw. H. turbines while all the men and equipment

were there than to put in one turbine which might have been sufficient for the time being to supply the load. However, the load has now increased and it has become necessary to go out and buy electricity under outside contracts, thus it is essential to use the Martinsville plant to furnish auxiliary power during the period of greatest peak load. The industrial demand has dropped off somewhat since the last of 1929.

The Columbia Power plant is not controlled in any respect by the affiliated companies. Neither is there any relation between the Wabash Valley Electric Company and the Indiana & Michigan Electric Company which connects at Kokomo with the Twin Branch plant.

At the time the price was changed from one and a quarter cents per kilowatt hour to one cent on the sales to the Northern Indiana Power Company in December, 1929, it was contemplated that sales to them would be decreased from that time on and purchases of the Wabash Valley Electric Company from Northern Indiana Power Company increased. It is further contemplated that the Wabash Valley Electric Company will be obtaining current from the north to a certain extent in the following year and to a greater extent from that time on.

Witness in his previous testimony testified that "we" had contract arrangements with companies other than affiliated companies for the purpose of purchasing electrical energy; in particular, contracts with the Indiana and Michigan Electric Company which owns the Twin Branch plant and the company that owns the Columbia plant. Witness, by the use of the word "we" referred to the affiliated system and not to the Wabash Valley Electric Company alone. The Indiana and Michigan Electric Company contract is with the Northern Indiana Power Company and the Columbia contract with the Indiana Electric Company.

Witness' answer as to the three small generating plants owned by the Wabash Valley Electric Company referred to the necessity of these plants as governed by the affiliated [fol. 316] system convenience and necessity, as well as to the Wabash Valley system. The current that the affiliated system buys from the Columbia plant eventually gets into the network through physical property owned by the Indiana Electric Corporation and the energy which the Wabash

Valley Electric Company gets from the Indiana Electric Company is metered. Thus the quantity of current which the Wabash Valley Electric Company purchases from the Indiana Electric Company is known but the source cannot be determined. The Indiana Electric Company, at the Ohio-Indiana state line, pays, at that point, 7.8 mills per kilowatt hour on the high step and a lower amount after a certain amount is used. This figure is contained in the contract. In relation to the contract between the Northern Indiana Power Company and the Indiana Michigan Electric Company a similar arrangement is provided as to the price at the point of delivery. The top step rate is 9 mills and the second step is about the same as the reduction at the Columbia plant for the Indiana Electric Company. The contemplated arrangement, which is now in the making, for current from the north will deliver power directly to the Wabash Valley Electric Company at a rate of one cent per kilowatt hour.

Under the arrangements as they now exist the Wabash Valley Electric Company, as an individual entity, is in a position to secure all of the energy it needs, independent of the three local generating plants, at one cent per kilowatt hour, which is less than the cost of the energy that would be manufactured by the three local generating plants owned by the Wabash Valley Electric Company based on operation for the same length of time and for the same quantity of energy. Thus, assuming that in the last year the three local plants owned by the Wabash Valley Electric Company generated about 123,000 kilowatt hours, a similar amount of current purchased at one cent per kilowatt hour from other sources would have been much cheaper than the operation of the local plants. The three local generating plants, however, serve as standby plants for the affiliated system because standby capacity must be provided [fol. 317] either by the sources from which the Wabash Valley Electric Company purchases its electricity or by the Wabash Valley system itself. These local generating plants produce less than 1% of the electrical energy consumed in a year's time by the Wabash Valley Electric Company.

For the year ending December 31, 1929, the total power purchased by the Wabash Valley Electric Company was, in round figures, about 85,000,000 kilowatt hours, and the bulk

of it was purchased from the Indiana Electric Corporation. The records of the company would show the amount. The high step rate is based directly on the kilowatt hours consumed, and after a certain number of kilowatt hours have been used, the rate drops, but if the peak demand exceeds the figure named in the contract then the Indiana Electric Corporation would have to pay the high rate for the proportionate increase in the number of kilowatt hours used, which increased rate would continue under the temporary agreement for one year only during the particular month in which it was used. The result of this is that if the Wabash Valley Electric Company increases its demand on the Indiana Electric Corporation, the power purchased by the Indiana Electric Company from the Columbia plant comes at an average greater price. The rate of one cent per kilowatt hour established for current purchased by the Wabash Valley Electric Company from the Indiana Electric Corporation was based upon a consideration of the fact that the Wabash Valley Electric Company would operate the three local independent plants to relieve the Indiana Electric Corporation from a peak load which would increase the price of the current which the Indiana Electric Corporation purchases from the Columbia Power Company. The price for current paid by plaintiff to Indiana Electric Corporation is fixed by witness as president of Indiana Electric Corporation and not as president of plaintiff company.

The Wabash Valley Electric Company has essentially uniform lighting and large and medium power rates in force over its territory and essentially uniform rates are in effect throughout the territory of the affiliated companies in order to prevent rate discrimination between [fol. 318] various cities. Within the past seven years the system has made about 100 rate reductions, many of these being necessitated in order to correct the rates of companies which were acquired by the affiliated system. All rates changes were reductions, most of which were voluntarily made without the necessity of hearing and were approved by the commission.

The operations of the affiliated companies are under the same management. Witness is the chief executive of all of them. The construction of transmission lines or power system property by plaintiff or by any of the other affiliated companies is made under direction of the same man-

agement. The properties of the affiliated companies are managed and operated as one property being interconnected physically, but each company is a separate corporate entity owning separate property. There have been no company-wide rate inquiries before the Public Service Commission for plaintiff or for any of the other of the affiliated companies.

September 3, 1930.

W. A. PENNINGTON, witness for plaintiff, testified:

Witness resides in Chicago, Illinois, and has been connected with the Utilities Securities Company for the past eight years, and has been marketing, from time to time, various Indiana securities. Assuming that an electric utility is about to be reproduced, which has transmission and distribution lines in eleven counties throughout central western Indiana furnishing around fifty cities and towns with electreity, and in addition furnishing electricity to coal mines, gravel pits, cement mills and other large power users outside the boundaries of the municipalities, having approximately 17,000 customers; assuming that it is interconnected with other electric utility companies at points indicated on Exhibit 1, thereby having available electricity generated at the Dresser plant, the Columbia plant, the Twin Branch plant and the State Line plant, and that it will, in the very near future, have available to it, generation from a large plant at Michigan City, and that in con- [fol. 319] nection with its business, and as a part of the arrangement whereby it obtains its power from these large generating units, it delivers to affiliated electric utilities approximately 35,000,000 kilowatt hours out of a total output of approximately 75,000,000 to 80,000,000 and that the arrangement between it and connected companies is upon an interchange basis whereby the Wabash Valley obtains its current at a certain price and sells it or delivers it at the same price to other companies all of which being part of the general arrangement whereby it gets its electricity, assuming that it has a gross income of approximately $1,700,000, including as a part thereof the income from current delivered to affiliated companies, and further assum-

ing that its income from customers other than affiliated companies is approximately $1,300,000; assuming a financial setup which involves $3,064,900 worth of first mortgage bonds, $1,001,600 worth of preferred stock, and $1,021,000 worth of common stock, these all at par, and further assuming that there has been an excess of construction expenditure over realization from securities of some $272,000 then, in the opinion of this witness, the cost of selling preferred stock in the sum of approximately a million dollars would be somewhere between $5.00 and $10.00 per share at a par value of $100.00.

PHELPS KELLEY, witness for plaintiff, testified:

Witness resides at Chicago, Illinois, and is engaged by the corporation department of Halsey, Stuart & Co., who specialize in the underwriting and distribution of senior obligations of well known companies, utilities, railroads and industrials. For the past five years witness has assisted in the negotiations for new issues and the preparation of those issues for offering to the public. Assuming the reproduction of an electric utility with transmission and distribution lines in eleven counties throughout central western Indiana as evidenced by plaintiff's Exhibit 1, furnishing around fifty cities and towns in those eleven counties with electricity, and in addition furnishing electricity to [fol. 320] coal mines, gravel pits, cement mills and other large power users outside the boundaries of these municipalities, to the extent of more than one-half of its entire output, eliminating deliveries to associated or affiliated utilities, assuming that it has 17,000 customers and that it is interconnected with other electric utility companies with sources of power at the points indicated on Exhibit 1 at the Dresser plant, the Columbia plant, the Twin branch plant, and the State Line plant, and that it will have, in the very near future, available to it, generation from a large plant at Michigan City, Indiana; and further assuming that in connection with its business, and as a part of the arrangement whereby it obtains power from these large generating units, it delivers to affiliated electric utilities approximately 35,000,000 kilowatt hours a year out of an approximate

total output of 75,000,000 to 80,000,000; that the arrangements between it and connected companies is upon an interchange basis whereby the Wabash Valley obtains its current at a certain price and sells it or delivers it at the same price to other companies, all of which being part of the general arrangement whereby it secures its electricity; further assuming that it has a gross income of approximately $1,700,000, including its income from current delivered to affiliated companies at the same price at which it buys it, and also including an income from its other customers of approximately $1,300,000, assuming a financial setup which involves $3,064,900 of first mortgage bonds, $1,001,600 worth of preferred stock and $1,021,000 worth of common stock, all these valuations at par, and in addition to these securities, assuming that there has been an excess of construction expenditures over realization from securities of some $272,000, witness testified that, in his opinion, the reasonable cost in March, April and May of 1929 of selling bonds secured by the property mentioned in the hypothetical question, in the amount of approximately $3,000,000, would be four or five points, which would be the difference between the price at which they are sold to the public and the realization price. Six per cent bonds would be sold [fol. 321] slightly above par. The elements which constitute the cost and expense in selling bonds of this nature include the risk of carrying the bonds through a bad market, the cost of investigation, including appraisals and examination of property by competent engineers, legal expenses, selling and advertising expenses, distribution expenses, the overhead expenses of the company marketing the bonds, plus the cost of the money which the bondhouse must secure in order to float the issue.

Plaintiff's Exhibit No. 1 is admitted and read in evidence.

CHARLES W. SPOONER, witness for plaintiff, testified:

Witness is a consulting engineer dealing with public utility engineering and doing business at Chicago, Illinois, under the name of Spooner & Merrill, Inc. Witness was graduated from the University of Michigan in 1906 and

subsequently was associated with Gardner S. Williams, consulting engineer of Ann Arbor, Michigan, as engineer, chief draftsman and principal assistant engineer and was engaged principally in designing and building a number of hydro electric water works and sewage disposal plants. Subsequently, witness was employed with Professor Riggs of the University of Michigan, together with Professors Anderson and Cooley. During this period witness made inventories, valuations and reports of the Pere Marquette Railway, Detroit United Railways, the Michigan United, the Grand Rapids Street Railway, the Savannah, Georgia and Central Railway of Georgia and a number of others. Witness also made inventories and appraisals of all of the properties of the Consumers Power Company of Michigan, the Detroit Edison Company, the Detroit Municipal Lighting Plant and a number of others. Since 1917 witness has been in business for himself, engaged in making appraisals and inventories for banking house reports, as well as actually engaged in the designing and construction of various phases of public utility property. Witness has been familiar with the Wabash Valley property since 1921 at which time his firm made a report on the original [fol. 322] Wabash Valley property. In 1922 he made up reports on the Martinsville Gas and Electric Company, Spencer Light, Power and Water, Gosport Electric, Morgan County Light and Power, and Rosedale Electric, which reports were made with a view to the purchase of the property and on the strength of which the properties were purchased. In 1927 an inventory and appraisal of the property was made. This inventory is the one which was used in connection with the trial before the commission involving the facts of this case. The inventory is made up from a field inventory and account of the various properties. Included in the field inventory would be all physical items of property, for instance: An electric pole would be inventoried as to whether it was a northern or a western cedar, or a chestnut or cypress, or a pine, its height and diameter would be noted, as well as whether or not it was treated to resist decay; cross-arms, pins, insulators, primary and secondary street lighting wires, or transformers, cutouts or whatever might be on that particular pole would be noted down on the inventory sheet. Similar

detailed field notes would be made on substations, power plants, and other items of equipment. Since 1921 witness has been over the properties of the Wabash Valley Electric Company between two to four times a year. While the inventory work is going on witness' employes are also collecting data as to records and construction and reproduction costs of the various items of property owned. This data is based on investigation, quotations from manufacturers, and sources of information which are tabulated both from experience in construction and from various cost analyses. Then each particular unit is given its proportionate allocation of the overhead, labor, material and cost of financing which was necessary to set it up in working condition as a part of the whole system. The cost of reproduction and the inventory and appraisement have been made as of May 1, 1929. The last inventory of September 1, 1927, has been brought down to date by the utilization of the company's work orders, together with a field check of the major items. This study, which determined the retirements and additions subsequent to September 1, 1927, was made in connection [fol. 323] with Haskins & Sells. Plaintiff's Exhibits 2-A to 2-F contain an inventory of the Wabash Valley property as of September 1, 1927, revised as of May 1, 1929. These inventories were made up largely under the direct supervision of Mr. Cook of Spooner & Merrill, Inc. Throughout these exhibits the cost of reproduction is based upon prices as of May 1, 1929. These prices do not include the general overhead costs which must, of necessity, apply to the property as a whole and not to any particular unit. For instance, in order to reach the cost of certain exhaust piping a quotation would be obtained of prices prevailing upon a particular date for large quantity purchases. To the cost of each unit would then be added freight items, labor cost, tool expense for tools worn out, insurance on the labor payroll, the expense of purchasing and the expense of supervision by the foreman, all being taken into consideration in reaching a cost of reproduction. Exhibits 2-B, 2-C, 2-D, 2-E and 2-F are respectively lists of property going to make up a part of the distribution system and the property making up the low voltage system and also the property included in the general office stores of the Wabash Valley Electric Company on or about September 1, 1927, revised

so as to represent the true value of the property as of May 1, 1929. General overheads and intangible values are not included in these exhibits. Small items however, of property used with gas or water are included in these exhibits but have been adjusted and allocated out in another volume which will be made an exhibit. Exhibit No. 2-G is a summary of Exhibits 2-A to 2-F and omits all gas and water property. The cost of financing is computed upon the basis of the testimony of the previous witnesses, Mr. Pennington and Mr. Kelley.

Page 1 of Exhibit 2-G, column A, indicates the figures taken from the separate volumes entered as Exhibits 2-A to 2-F.

Column B represents retirements based on a consideration of Haskins & Sells exhibit and represents property [fol. 324] taken out at the same price at which it was included in the original valuation. These retirements are those occurring from September 1, 1927, to April 30, 1930, and represent a total of $308,440, which has been retired from the inventory made on September 1, 1927.

Column C is simply the arithmetical difference between columns A and B.

Column D represents the addition of the items of general overhead costs to structural costs. The different elements of overhead costs which are considered are the so-called acts of God, storm and weather conditions; the contingent necessity of overbuilding or removing the property of other utilities such as telephone properties; the possibility of labor disturbances; the probability of unforeseen natural obstructions such as flint rock in the bottom of condensor pits; the matter of damages to abutting land; the expense of consultation, advice and supervision with plans and specifications on the work; legal, administrative and organization expense; interest and taxes during construction. None of these overhead allowances extend beyond the completion of the plant and the property. Of necessity these overheads, incidental to construction, are moneys which have to be paid out of pocket. An interest allowance of 7% per annum has been allowed on each item of land which must be secured in advance of the construction work and a one year's allowance during construction has been made for each item. In all there are some $11,000 or $12,000 of interest charges of this nature. No interest

has been allowed on general equipment, such as office equipment, on the theory that such equipment will not be obtained until it is necessary to put the plant in operation. Similarly, no interest has been allowed on meters and transformers. On all other items 3½% interest has been allowed, being based upon a one year construction period plan. Allowance has been made for the possibility that a little interest could be obtained on the money which is on hand from day to day. The question of taxes has been determined by considering the tax levy made on March 1st at 60% of the true value. On that valuation the tax rate [fol. 325] of $3.00 a hundred has been figured.

Column E represents additions from September 1, 1927, to April 30, 1930 and is based on the Haskins & Sells exhibit. It is fundamentally a compilation of the company's records of additions to the plant between the dates indicated. Witness' force and the Haskins & Sells force reached this compilation primarily through the Wabash Valley Electric Company's job orders. These job orders show an estimate of the cost of a particular piece of work and an entry is subsequently made which will adjust the difference between the actual cost and the estimated cost. In all of these compilations it is the actual cost which has been considered.

Column F represents the value of the Wabash Valley properties less the retirements and plus the additions and betterments as of May 1, 1929, which is the new reproduction value of the entire property.

Witness' assistant, Mr. Cook, and his assistants, went over the property to make memoranda as to the conditions in which they found the property. There is little about transformers which deteriorates. Inspections, of course, must be made at regular intervals to determine the exact condition of each transformer to change oil, repaint transformer cases and replace bushings, etc. Meters are subjected to regular examination and occasionally it becomes necessary to replace the bearing jewels which cost, for the ordinary meter, about eighty cents. The reproduction cost of the meters is based upon the price of a meter tagged, that is to say, the cost of purchasing a meter, cartage, freight, and testing up to the time that the company puts a tag on it to indicate that it is suitable for service. Ordinarily, in the process of operation of an electric utility,

meters are installed and removed one at a time. The cost of reproduction here, however, has been figured on the basis of a load of them hauled at a time.

The depreciation of the property, which has been given a reproduction value of $4,928,134 on May 1, 1929, is [fol. 326] represented by the difference between the cost of reproduction new and the cost of reproduction less depreciation. By way of illustration, on page 215, Exhibit 2-G, the first item of Barnard Substation equipment is found to be in 95% condition. These percentages variously range from 50% up to 100%. In witness' opinion, about 80% of the property of the Wabash Valley Electric Company has been put in new within the last six or seven years, and from September 1, 1927 to April 30, 1930 $1,184,000 worth of new property was installed. In a general way, the property of the Wabash Valley Electric Company is substantially a new property. A utility of this nature must carry repair parts of all kinds, poles, crossarms, hardware, insulators, conductors, wire of different sizes, transformers and, in witness' opinion, $140,000 for materials and supplies of this nature is a fair and reasonable allowance. It is also necessary to carry sufficient funds as working cash to meet six weeks of operating expenses. Witness believes that the figure of $182,185 for the cost of financing the building and construction of such a plant is a reasonable amount. In a property of this kind the going concern value is the difference between a property which is constructed but has no business and the same property which has its business attached. It is particularly true of a utility of this nature since steps must be taken to gain customers and secure the use of various electric appliances and to educate the people to some extent. In witness' opinion it would take a four year period to re-establish the present business of this company. The first year it would start with 30% of the business connected; at the end of the first year it would have 60%; at the end of the second year 80%; at the end of the third year 90% and at the completion of four years' operation it would have 100% of the present company's business. The computation of going value is based on the amount of investment upon which a return must be made and upon which there would be an interest charge. Then in the first year starting with the initial number of customers of 30% and ending with 60%

the average would be the arithmetical mean of 45. Simi-
[fol. 327] larly, in the second year there would be 70% of the system loaded; the third year 85%; the fourth year 95% and at the begin-ing of the fifth year a complete load. Thus, by subtracting from 100% the load during any given year, the portion of the plant not yet in operation and producing revenue could be reached which, in this instance, would reach a total of unloaded items of 105% spread over the four years. The annual carrying charges would be interest at the rate of 8% on the amount of property involved which is, in round numbers, $3,900,000. Depreciation would be 4% of the depreciable property and amounts to $157,000. Taxes on the $3,944,000 are estimated to be $84,000 and the total of the items of the annual carrying costs would amount to $557,000. These items are applied to the property in place and installed but not used because the business has not yet been built up to use it. In addition to this item of cost, there would be the cost of securing the business itself, including advertising and salesmen, demonstration, soliciting and canvassing, which would total $42,100 per year. Before a company could actually start operation it would be necessary to have certain key men on the job for at least a month, whose salaries are estimated at $2,500 and necessary traveling expenses, etc., at $1,680. The working force of the company should be on the job at least two weeks in advance of the actual construction, which cost has been estimated at $6,511. Because of the waste involved in coordinating a new force with new plants 5% more employes have been taken for the first year and 10% added to the cost of obtaining a personnel, because of increased labor turnover, all of which amounts to $17,167. To sum up these figures, the total of carrying cost of the unloaded plant is $584,999; cost of securing business $143,400; personnel cost $17,167, giving a total of $745,566, which is the minimum amount of going concern value, which is approximately 15% of the money value.

Plaintiff's Exhibit 2-H is an inventory of the distribution system in the city of Martinsville, Indiana, made as an actual new inventory and appraisal on May 1, 1930 and was made in conjunction with the engineers of the Public Serv-
[fol. 328] ice Commission. On page A of this exhibit is

shown land structures and equipment for local and Martinsville use only. The next item shows the distribution system consisting of poles, crossarms, overhead conductors, line transformers, and meters. Materials and supplies, working cash, going concern value, and cost of financing have been allocated on the basis of the number of dollars involved in the Martinsville plant. This whole inventory is made in substantially the same manner as the previous inventories of the entire Wabash Valley Electric system, and the figure $135,000 represents the cost of reproducing the Martinsville property, less depreciation plus certain items as of May 1, 1929. Plaintiff's Exhibits 2-A to 2-H are admitted and read in evidence. All of these several exhibits have been reached through witness' conception of reproduction cost under modern methods and modern efficiency at prices for material and labor as they exist on May 1, 1929. Meters and distribution transformer installation have been computed in greater installation units than the present company installs them but it has not been assumed that they would go out in a wholesale manner in great truck loads.

It is contemplated that the exact plant in existence would be reproduced and, in witness' opinion, all of the properties of the Wabash Valley Electric Company are in excellent shape and excellently managed.

The original inventory used in the appraisal contained in Exhibits 2-A to 2-F was made as of September 1, 1927. This inventory and appraisal covers all of plaintiff's electric property and includes the local property in about fifty communities that it used for the purpose of distributing electricity in those communities. Martinsville is one of them. Witness was given a general order by plaintiff in 1927 to make a general inventory and appraisal of its property, he presumed it would be used both for the purpose of a merger proceeding and this rate case. The distribution system and some local items in the power plant in Martinsville is used and useful only for giving service to the people in Martins- [fol. 329] ville. The discounts which would accrue to the present plant by virtue of its association with other companies and holding companies have been considered and been given effect in this inventory.

There would, however, be some items of property which are incapable of being distinctly local or distinctly a part of the general system.

The fair value of the property located within the limits of any community is useful in determining the cost of service of that community. Any such local items are useful in making certain that one community is not saddled with a rate which would be inapplicable in another. The differences should be ironed out. To obtain the amount of the fair value of the property that would be used and useful in Martinsville the local property in the other towns and communities is not needed. The appraisal ordered in 1927, containing this same inventory, was used before the Public Service Commission in relation to a petition to merge Wabash Valley Electric Company and other companies. Witness made appraisals of the properties of eleven subsidiary companies, including plaintiff, of the Central Indiana Power Company group, which were used at the merger hearing. Witness thinks he was employed by Central Indiana Power Company to make all these appraisals. The bill for all this work showed the work for each company and was put through to the same man. Witness does not know how the company distributed the charge he made as between the merger and rate hearings.

At the time witness was making the appraisal and inventory for the Wabash Valley Electric Company he was also making appraisals for eleven subsidiary companies of the central Indiana group corporation. In a general way, the boundaries of the Wabash Valley Electric Company extend on the west to the state line, on the south to the neighborhood around Sullivan, Indiana, and on the east to the west edge of Indianapolis, and on the north to Lafayette. In making up the report and inventory, witness relied upon reports of subordinates. The local distribution [fol. 330] plants at Martinsville and the numerous other communities now owned by plaintiff had been built by other companies and were afterwards purchased by plaintiff.

The property of the Wabash Valley Electric Company as of May 1, 1929, was not constructed at any one time but the major portion of it was built within a period of five or six years. The inventory and estimated cost of reproduction is based on the assumption that the Wabash Valley Electric Company, as a new corporation, would do the construction work itself, buying material, employing labor and supervising the work. For common labor on the buildings

a wage average of forty cents an hour was taken. Ground men are allotted forty-five cents an hour; truck drivers fifty-five cents an hour; labor foreman fifty cents an hour and linemen seventy cents an hour.

The biggest item in the local distribution system is gathered together under the title of poles, towers and fixtures. Pole prices are based upon quotations from various pole concerns and are shown in Exhibit 2-H, page 2. The unit cost of a 30′ 6″ northern cedar pole is built up as follows: Price of pole f. o. b. point of delivery $7.85; average haul of one mile to storage point $.26; labor incident to hauling $.26; framing and roofing of top of pole $.44; cost of unloading from freight car $.25; digging pole hole $1.75; erecting and setting pole $1.37; for contingent matters such as purchasing, broken poles, etc., 2% has been added to each dollar of material; for cost of tools 2% has been added to cost of material; purchasing expense has been estimated at one-half of 1% of cost of material; in round figures 5% has been added for costs of this nature. To the bare cost of labor has been added 18% for contingent matters such as compensation insurance, direct supervision, etc. Thus, the total price of the pole in place is shown in the inventory as $13.05. Estimates of the unit costs of insulators was reached on a similar basis; with a slightly higher percentage for breakage and storage. The highest percentage allowed on materials for undistributed costs is 18%, which is not on material alone. This is because small articles of equipment such as insulators are easily broken and it is more difficult to get an accurate [fol. 331] count of them. This item is largely based on experience in the construction of transmission lines. Poles used on high lines as shown in Exhibit 2-B, page 18, are given a slightly higher unit cost owing to the fact that the high line crews carry a higher wage scale and also put in a portion of their day in traveling to and from their work on company's time. This difference, plus the longer haul involved accounts for the difference in price.

The next item is copper conductors as shown in Exhibit 2-H, page 8. Within the town of Martinsville there is a unit price of $259.77 per mile of number 4 triple braid water proof conductor. The price for this type of copper wire as of May 1, 1929 is reckoned on present contracts of the company and the market value of copper. The prices,

of course, are based on large orders involving car lot shipments. There has been a drop in copper prices since May 1, 1929. For example, No. 4 solid copper wire was priced in the appraisal at twenty-one cents per pound. It is now about six cents per pound cheaper. The total cost of reproducing the overhead conductors in the distribution system at Martinsville would be $17,723. The cost of the copper service wires in Martinsville would be, roughly, $7,936, and the total cost of the copper wire used in the above two ways would be as of May 1, 1929, $25,679. Copper constitutes the largest single item of cost in reproduction costs of the transmission system. The unit price of copper conductors is built up on the basis of purchase costs, labor costs, supervision costs, etc., similar to the manner in which the unit costs of poles is reckoned. The going concern value of the purely local Martinsville property is computed at 15% of the cost of reproduction new and is valued at $17,063 as applied only to the allocated portions shown on Sheet A of Exhibit 2-H. Exhibit 2-G, page 1, Column F, represents the cost of reproduction new of the four generating plants at Clinton, Spencer, Sullivan and Martinsville up to April 30, 1930 as amounting to $628,286, from which has been deducted for depreciation $393,108.

Of the property inventoried in Exhibits 2-D and 2-E, [fol. 332] only the Martinsville local property is used in distributing current in Martinsville. The other property of local character outside of Martinsville is not used in bringing electricity to Martinsville.

In reckoning the going concern value of the affiliated properties at 10% in the merger hearing witness took into consideration the condition and general situation of the interurban and street railway lines involved which are in poor condition and not far from the necessity of receivership, and reached a figure of 10% based on the whole system of which the Wabash Valley Electric Company is a part only. I stated at the merger hearing that if I were testifying to the going concern value of the electric properties alone in the Central Indiana Power group it would be in excess of 15%. The going concern value for Martinsville is simply an application of the figure which was found to be the going concern value of the Wabash Valley Electric Company as a unit.

Plaintiff's Exhibit 11 is identified as a summary of the undistributed unit costs as applied to various units through-

out the distribution transmission system, substations and plant equipment. For instance on page 1 of Exhibit 11 under the item "Poles" the ultimate percentage on material is 5% and on labor 18%. These, however, are not to be taken as straight averages, but are weighted according to the amount of dollars involved in material and labor. Thus, the average undistributed cost of poles is not 23% but is somewhere in the neighborhood of 10%. One-half of 1% is used on large equipment to represent insurance in transit and items of like nature. Because of the difficulty of estimating weights of switchboard and bus structure an item of 2% to cover freight is added, which is a close approximation to actual experience in such matters. On switchboard and bus structure there are so many miscellaneous small items which are not specifically inventoried that percentages of 13 and 18 are added to cover these items, the percentages being based on superintendence and analysis of actual construction costs. Plaintiff's Exhibit 11 admitted and read in evidence.

[fol. 333] The percentage of annual allowance which must be made for replacement on renewals of equipment is a matter of judgment and experience. A straight line depreciation and age table does not fit the situation. Conditions change so that a perfectly good piece of equipment may be retired in one-fourth of its normal life. On the other hand, various pieces of equipment may last three or four times as long as the normal life expectation. A reserve must be maintained to take care of future conditions and obsolescence and inadequacy of equipment which will come in the future. In witness' judgment, 4% of the cost of reproduction new is a reasonable amount for the replacement and renewal expense.

A public utility has a larger capital investment per dollar of revenue than other businesses in the industrial field. Often a utility will spend annually in excess of 30% of its gross revenue for extensions and additions. In order to finance these extensions it is necessary to obtain money from the investment market. Therefore, the company must earn a sufficient rate to attract investors. Because the rates for money fluctuate more or less and because a utility is subject to fluctuations in periods of depression during which the return cannot be shifted promptly enough, it is necessary to permit a surplus to accumulate to take care of dividends during lean years.

To take care of the return on bonds, debt discounts, borrowed money and stock dividends, it is necessary to have a rate return of 7%. In order to accumulate a surplus, and make it easier to finance the company, the rate of return should be not less than 8% based on the fair value determined for rate making purposes which may be represented by the cost of reproduction new, less depreciation. The Wabash Valley Electric Company has been well planned and facilities for distributing electrical energy have been provided with proper anticipation of the needs and growth of the territory served. The standards of maintenance of the property have been excellent.

The Wabash Valley Electric Company is benefited by pur- [fol. 334] chasing power from the Dresser plant at one cent and delivering it to the Northern Indiana Power at the same price per kilowatt hour and absorbing the line loss because it is benefited by being a part of the power pool since, if the Wabash Valley purchased only the amount of energy that it used on its own system, it would be forced to pay a greater price than has been paid to the pool. Possibly for the time being the Wabash Valley Electric Company could purchase all the power it needs from the Dresser plant, but looking ahead to changing conditions it might be that the energy from the Dresser plant would be diverted elsewhere requiring the Wabash Valley Electric Company to purchase current from the north which would permit them by present reciprocal arrangements to purchase at a price of one cent per kilowat hour. In reckoning a 4% rate for annual depreciation, witness was forced to take into account the fact that local distribution systems and equipment are subject to a much higher rate of depreciation than so-called power system. Spooner & Merrill's cost of reproduction new on this property is so near present value that I would apply the rate for annual depreciation to cost of reproduction new. Witness' idea of present value is cost of reproduction new less depreciation. 4% is, therefore, an average over the whole property. The depreciation rate of 4% is an engineering estimate and the company is not old enough to determine adequately what the actual practical rate has been, but the history of the company shows that depreciation replacement has varied from 1% to 6%.

Plaintiff's Exhibit 12-A is a certified copy of the commission order of January 26, 1929. Plaintiff's Exhibit 12-B is

the supplemental order in the same proceeding approved February 15, 1929. Both are admitted and read in evidence.

September 4, 1930.

DONALD M. COOK, witness for plaintiff, testified:

Witness resides at Chicago, Illinois and is vice president of Spooner & Merrill, Incorporated, consulting engineers, [fol. 335] and has been associated with them since June, 1927. Witness graduated from the University of Michigan in June, 1915; was later employed by the Village of Winnetka, Illinois, with duties involving, among other things, the operation of municipal water and light plants. In 1916 witness was employed by the City Engineer's office of Flint, Michigan and since 1920 has been engaged in inventorying and appraising electric utility properties in association with Mr. Spooner. Since April, 1921, witness has been in contact with the different properties of the Wabash Valley Electric Company and has made two complete inspections and has investigaged various parts of the property at three or four other times.

The valuation of the Wabash Valley Electric property subsequent to September, 1927, is based upon a study of the detailed inventory by Spooner & Merrill. Haskins & Sells were employed by the Wabash Valley to make a study of additions to the property subsequent to September, 1927. It was necessary to determine what equipment had been retired from use by the Wabash Valley Electric and this equipment was valued at the same figure for retirement purposes as had been given it in the 1927 appraisement. The figures as shown in the exhibits fairly represent the reproduction value less depreciation of the property plus intangibles, going value, etc., as of the dates indicated. The total reproduction value less depreciation, not including intangibles, material, supplies, or working cash of the purely power system property of the Wabash Valley Electric Company is given as $2,837,237 on page 3 of Plaintiff's Exhibit 2-I. In like manner the corresponding value of the local property of the Wabash Valley Electric Company is $1,514,515, including the Martinsville property. In witness' opin-

ion, the allocation which has been made of property as set out in Exhibit No. 2-I is a fair allocation and division as to use for power system purposes and for local purposes.

Plaintiff's Exhibit 3-A is a photographic reproduction of a section of the map of Martinsville, Indiana, indicating the location of poles. Exhibit 3-B is a schedule of wire showing [fol. 336] sizes and kinds. Exhibit 3-C is a copy of one page of field notes as made in inventorying the electric distribution system of Martinsville. Exhibits 3-D and 3-E are photographs of a single pole, No. 376, at Martinsville, which is also indicated on Exhibit 3-A. Plaintiff's Exhibits 3-A to 3-E, inclusive, are admitted and read in evidence. The inventory of the Martinsville local plant is summarized on page 112 of Exhibit 2-A. As of April 30, 1930, Martinsville had 1,635 electric consumers within the municipal limits and 339 outside. There were 640 gas consumers who were considered in the allocation of the property there. Spooner and Merrill worked out no allocation of power system property value to Martinsville as representing that part of the general power system property that is used and useful in giving service to the town of Martinsville. The allocation of the power system property as a whole out of the appraisal of plaintiff's entire property is as far as they went.

The line usually runs through the substation and the current may come from either way on the line. The top intake at the Martinsville substation is 66,000 volts. A 33,000 volt current leaves that substation on the line to Spencer. This line serves either Martinsville or the other way. A 66,000 volt line to Bloomington leaves the Martinsville substation.

There is, in almost every instance a substation from which energy is taken from the low side for rural and other communities. There are about fifty substations in plaintiff's system. About twelve per cent of the total substation figure in the Spooner and Merrill appraisal is treated as local property, and eighty-eight per cent of that figure is in the allocation to power system property. None of the substations are used or useful in distributing current inside Martinsville. The substation at Martinsville is allocated to power system, but is used to step the current down for distribution in Martinsville.

The method of arriving at the cost of financing the property of the Wabash Valley Electric Company, as a whole, [fol. 337] was reached upon figures furnished by Mr. Kelley and Mr. Pennington which, by arithmetical calculations reach 3.8 per cent average on the securities as a whole, which percentage has been carried in the appraisal as the cost of financing. No cost of financing has been included, for the common stock since it has been assumed that it is the company's money which has been used to purchase the common stock. If common stock were sold it would be necessary to add certain costs incident to the sale thereof.

Plaintiff's Exhibits 4-A and 4-B are figures prepared by Haskins & Sells to which witness has previously referred regarding additions to property of the Wabash Valley Electric between August 31, 1927, *to* February 28, 1929. On Exhibit 2-G, Column E, the additions from September 1, 1927, to April 30, 1930, are shown to be $1,184,873 on the entire property of the Wabash Valley Electric Company.

Plaintiff's Exhibit 2-I is read and admitted in evidence.

In Exhibit 2-I, page 8, under substations, Lafayette substation at 66,000 kilowatts is listed at $115,282, and is placed under power valuation.

The various localities, within their limits, are supplied at a voltage which is customarily about twenty-three hundred volts. It is, at that voltage, only conducted through the streets and to the secondary lines from which the customers are supplied. Such a distribution system exists in each of the communities in plaintiff's system. The power system conducts current at varying voltages from one point to another entirely for the convenience of the general situation. This feed power is conducted from Terre Haute to Indianapolis at 132,000 volts over large conductors. To Clinton it is conducted from Terre Haute at 66,000 volts over smaller conductors. It is conducted from Clinton to Greencastle and Bainbridge and other parts of the system usually at 33,000 volts. The station at Lafayette as one of its functions switches the 66,000 volt transmission through Lafayette and benefits the various local communities. The substation at Roachdale listed at a unit cost [fol. 338] of $9,286 is also allocated to the power system and steps down the current to 13,200 volts and 2,300 volts

in order to serve certain local communities—at Russellville, Waveland, Brownsville, New Market, Ladoga, Barnard and North Salem. It does not furnish current to Bainbridge or Martinsville or any other town served by the Wabash Valley Electric Company but is useful as a part of the whole power system because the entire Wabash Valley Electric system is designed as one unit to furnish energy in the cheapest and most satisfactory way possible. Plaintiff's power system lines are interconnecting among themselves and connect with each other through the lines of affiliated companies, furnishing this energy through substations which are installed at the convenience of the furnishing company, at advantageous points, to transform the voltage for the local distribution system.

That part of plaintiff's property shown on Exhibit 1 which serves Sullivan, Hymera, Jasonville, Coalmont and Clay City is not connected with any other part of plaintiff's system by its own transmission lines.

The line from Sullivan to Jasonville and Clay City could not supply current to Martinsville. It is included in Spooner and Merrill's appraisal and falls under power system property.

From an engineering standpoint, the system of the Wabash Valley Electric Company is sound and should exist in its present form for its present purposes. The substation at Roachdale is properly located and enables Martinsville to receive its reward by virtue of more efficient operation of the system as a whole. It would not be possible to sell electricity throughout the Wabash Valley system at an average cost to all customers. A coal mine could produce its own energy and the price must be placed at a rate which will permit sale of the current and be an advantage to the system as a whole, by increasing the load factor.

The local distribution systems of eleven towns throughout the Wabash Valley territory have, within the last three or four years, been rehabilitated to an extent which sub- [fol. 339] stantially amounts to a complete rebuilding. Since 1922 twenty-two town distribution systems have been completely built new in addition to the eleven which have been rehabilitated. Thus, out of forty-six towns, where the Wabash Valley owns the distribution systems, thirty-three have been entirely rebuilt or substantially rebuilt in the last four or five years. In all cases property treated

as local in Martinsville is similar to corresponding property which has likewise been allocated to local use in other communities.

Plaintiff's Exhibit 13 and Plaintiff's Exhibit 14 are studies which witness has made as to copper prices. Decreases in copper wire prices from May 1, 1929, to September 1, 1930, if extended in dollars for the whole system amount to $130,733, and for the local Martinsville property $6,575. These estimates are based on price up to structural cost only. There is no overhead added or any other elements that are put on the appraisal sheets following. Plaintiff's Exhibit 13 and Plaintiff's Exhibit 14 admitted and read in evidence.

Defendants' Exhibit 26 is a detailed study of the differences of the appraisal of Spooner and Merrill and the appraisal of Hugh M. Abbett. The Clinton substation has been valued in the commission's appraisal at $57,067 and on the Spooner and Merrill appraisal at $67,426. This difference is largely due to the inclusion by Spooner and Merrill of switching equipment used directly in operation, which Abbett did not put in. The Bainbridge substation was estimated by Spooner and Merrill at $4,000 which was not included by Mr. Abbett although he testified it should have been valued at about $3,000. The commission has estimated the substation at 92.3% condition, and Spooner and Merrill have estimated the condition at 96.7%. This difference of 5% is largely due to Mr. Abbett's theory of accruing obsolescence.

Mr. Abbett threw into the commission's power system estimate all of the equipment in the generating plant at Clinton. The total of the differences between the commission appraisal prepared by Abbett and the Spooner and [fol. 340] Merrill appraisal is given as $295,892, which is the difference between the two estimates of the cost of reproduction new less depreciation of the power system property. Abbett allowed 10% for going value and Spooner and Merrill allowed 15%.

Plaintiff's Exhibit 27 is a statement of the comparison of appraisals by Spooner and Merrill and the Public Service Commission of the Martinsville local electric distribution system as of May 1, 1930. The commission estimates the cost of reproduction of the strictly distribution property at $70,104 and Spooner and Merrill at $86,070. Part of this

difference is due to the fact that the commission used May 1, 1930 prices as compared to the Spooner and Merrill prices of May 1, 1929. The commission also used a forty cent meter setting charge as compared to Spooner and Merrill's charge of $1.05.

Spooner and Merrill have included slightly less for overhead because of a different mode of computation and have included the power plant land and structure and switching and direct current equipment used locally which was not included in the commission's estimate, so that the total cost of reproduction new, as estimated by Spooner and Merrill, is $113,752 as compared to the commission estimate of $86,-845. The commission has considered the physical property without overhead at an average of 84% condition, while Spooner and Merrill have used 88%. The change in copper prices, which were lower in May 1, 1930 has also had influence in the valuation. Spooner and Merrill's figure for reproduction of the power system new, less depreciation is $3,637,650 as compared to the commission's figure of $2,868,-366, which makes a difference of $769,284. The difference in appraisals of the physical property, however, differs only in the amount of $295,892, but Spooner and Merrill have allowed $117,620 for cost of financing and the commission allowed nothing. Spooner and Merrill's estimate for going value is approximately $155,000 more than the commission figure.

[fol. 341] September 5, 1930.

ROBERT B. SMALL, witness for plaintiff, testified:

Witness has been employed by Haskins & Sells, certified public accountants, Chicago, Illinois, since 1923. Prior to that time witness had experience as an insurance accountant. During the past six or seven years witness has been engaged in auditing the books of various public utility companies, including the United Public Service Company, the Central Public Service Company and the several small companies of which they are composed. Witness has also prepared mortgage trustees' reports for banks.

Since 1923 annual reports and audits of the accounts of the Wabash Valley Electric Company have been made for

the trustee under their mortgage. The purpose of these reports is to see that the Wabash Valley Electric Company capitalizes only legitimate capital charges and that no expense items go into capital. Plaintiff's Exhibits 4-A and 4-B were prepared by Haskins & Sells and show that the Wabash Valley Electric Company from August 31, 1927 to February 28, 1929, made additions to its electric property in the amount of $535,228.69. These figures were reached by examination of company vouchers, checks and invoices, labor payrolls and apportioned book entries.

By similar computation the figure of $293,635.93 was reached as the estimated book value of retirements during the period from August 31, 1927 to February 28, 1929. Page 1 of Exhibit 4-B shows plant property additions of the Wabash Valley Electric Company as amounting to $759,000, plus, for the period from February 28, 1929 to April 30, 1930. The estimated book value of the plant property retired by the Wabash Valley Electric Company for the same period is $183,140.54. All of these figures have been reached by the same process as previously outlined by witness. For the year ending December 31, 1929 maintenance cost amounted to about 3½% of the gross revenue for the same period.

[fol. 342] Frank W. Martin, witness for plaintiff, testified:

Since 1922 witness has been in the employ of Sargent & Lundy, consulting engineers at Chicago, Illinois. Prior to 1922 witness was graduated from George Washington University, Washington, D. C., was employed with Franklin Automobile Company as engineer for about a year and taught mechanical engineering at the University of Illinois for about two years. Sargent & Lundy are engaged primarily in the design and supervision of the construction of steam electric generating plants. In this respect they have supervised the construction of about 15% of the total steam generation in the United States as well as various other plants in South America and Europe.

Witness has investigated the cost per kilowatt hour of generating electricity at Martinsville. Three methods have been taken into account. These methods are shown in plain-

tiff's Exhibit 5 which was prepared by witness. The first scheme involves adding certain new material and machinery to the existing plant at a cost of $52,443 at prices as of the present time, which are somewhat lower than prices were in 1929. Under this plan $129,900 of the present valuation of the equipment now at Martinsville would be retained. The land, of course, would be retained in each of the plans.

The total value of the completed plant under plan 1, including equipment, land, supplies and repairs, operating cash, going concern value, cost of financing, would be $206,710, but the plant as rehabilitated would not be a very good engineering proposition. On an estimated output of 2,535,000 kilowatt hours, with coal at a price of $3.20 per ton, the cost per kilowatt hour to manufacture electricity would be 3.266 cents which would permit a 7% return on the investment. On the basis of an 8% return the cost per kilowatt hour would be 3.347 cents. An increase of ten cents a ton to the price of coal would increase the cost per kilowatt hour about $.0035.

[fol. 343] The second scheme contemplated a more complete rehabilitation of the Martinsville plant which would be necessary if the plant were to deliver uninterrupted and reliable service. Including certain equipment of the present plant which could be used at a depreciated value, the value of such rehabilitated plant would be $251,344. Under this scheme the cost per kilowatt hour on a 7% return on the investment would be 3.21 cents and reckoned upon an 8% return on the investment the price per kilowatt hour would be 3.221 cents, which is reckoned on the cost of the current at the station switchboard and without any transmission or distribution charges.

Scheme three contemplates an entire new plant with modern machinery and engineering design, at an investment of $330,222. This plant would produce electricity at a cost of 3.052 cents per kilowatt hour on an investment return of 7% and at a cost of 3.181 cents per kilowatt hour on the basis of an 8% return. An increase of ten cents per ton in the price of coal would increase the cost per kilowatt hour .02 cents since scheme three will operate on about half as much coal as scheme 1. Scheme three would be the cheapest and most economical way of furnishing electricity to Martinsville if an isolated plant is used.

However, the most economical method would be the use of power from a high tension transmission line. In a local plant of similar size to the one at Martinsville located at Berlin, Wisconsin, the generating cost without fixed charges for the year 1929 was 2.22 cents per kilowatt hour. A similar size plant located at Watertown, South Dakota had a generating cost of 2.37 cents per kilowatt hour without fixed charges. The cost of generating electricity at the State Line Generating plant, which is one of the very largest in the country, is something under a cent per kilowatt hour. The cost of generating electricity is lower at a large plant like Dresser, State Line or Columbia than at a small plant, and can be delivered cheaper at Martinsville over a transmission system than it could be generated locally. Witness thinks the cost of generating energy at [fol. 344] the Columbia plant is half a cent or less. The trend in generating costs of current by large plants is downward. The cost of generating current about 1900 was quite high, then with the introduction of steam turbines, about 1903, the cost dropped very rapidly until about 1910 or 1912. Then, with the slower changes in equipment designs, the cost was reduced gradually until the time of the war, when it increased. Since the war the cost trend has been downward on a somewhat slower rate and is still downward. At the present time a generating cost of under half a cent is probably feasible in the larger central plants. It is not possible to get anything like such production costs in localized plants. It might be feasible in a new plant built under the most efficient generating conditions to produce current at around a half cent per kilowatt hour, but this would make no allowance for return or fixed charges.

Plaintiff's Exhibit 5 admitted and read in evidence.

September 9, 1930.

CHARLES A. HAMILTON, witness for plaintiff, testified:

Witness resides at Grand Rapids, Michigan and is a member of the engineering firm of Hamilton & Weeber. Witness was graduated from Michigan State College in civil engineering in 1911. For seven years after graduation witness was engaged in the operation and construction of

utilities. In 1918 witness became associated with Mr. Spooner in appraisal work. He continued this association until witness went into business for himself.

Witness spent three years in the reconstruction of a power plant at Springfield, Illinois; was engaged two seasons in Springfield, Ohio, in the construction of a local plant there of 5,000 kilowatt capacity. In 1923 witness designed and kept close contact with the construction of a local plant at Logansport of 2,000 kilowatt capacity; witness was associated with Mr. Spooner in an appraisal of the Merchants Heat and Light properties in Indianapolis. Witness has now completed a program for the reconstruc- [fol. 345] tion of the utility plant at South Haven, Michigan; and is now engaged in a reconstruction program for the municipal plant at Holland, Michigan at a cost of about $400,000.

At the request of Mr. Charles W. Spooner witness made a study of the possibility of remodeling the generating plant at Martinsville, Indiana, as evidenced by Plaintiff's Exhibit 6. Good engineering practice requires that an isolated plant should be built so that the load may be carried with any one unit out of service.

At Martinsville this would require, under what is designated as plan 1, the retirement of a Corliss engine unit and the installation of a 750 kilowatt condensing turbine. Plan 2 as outlined in the report contemplated the additional installation of a new boiler. Plan 3 contemplates the construction of an entire new plant with two units of 750 kilowatts each. Prices on each of these plans are reckoned on prices current during the past six weeks.

Plan 1 is estimated to cost $66,816, which cost is built up on an estimate of cost of material, labor, engineering supervision and general overhead. The total cost of the plant when completed is estimated to be $201,696. Operating costs, based on coal at $3.20 a ton, are estimated to be 3.4078 cents per kilowatt hour. An increase of ten cents per ton in the cost of coal increases the cost of current per-kilowatt hour $.003540.

Plan 2 is figured on the same basis of estimates as Plan 1; contemplates the utilization of a little less of the old property and the addition of more new equipment, and the cost of generating electricity per kilowatt hour is estimated to be 3.26 cents on an 8% return basis.

Plan 3 contemplates a new plant of modern design which probably would cost a bit more than the reproduction of the old plant. Under this plan an estimated cost is given of three cents per kilowatt hour on an 8% return basis.

The component parts of the various estimates are taken from the experience of witness in previous jobs. Plan 2 on [fol. 346] page 15 shows a building which is comparable to a building construction job at South Haven, Michigan. Similarly the boiler described is almost identical with the boiler installed at the Vassar plant near Saginaw, Michigan. The boiler feed water system is similar to that used at South Haven as is also the coal handling equipment. The turbine is identical with the one installed in Traverse City, Michigan, two years ago. A plant comparable to the one at Martinsville is located at South Haven which had operating costs for the year ending March 1, 1929, of 2.47 cents per Kilowatt hour. From March 1 to October 1, 1929 their operating costs were 1.79 cents per kilowatt hour but during that period the plant produced 1,345,000 kilowatts which is more than the Martinsville plant would produce in a year. It is impossible to compare costs per kilowatt hour between different plants unless each has the same load factor and capacity. The figures given on the South Haven plant did not include expenses by way of taxation and allow nothing for return. Under the plans developed by witness for Martinsville the bare operating cost under Plan 1 is 2.33 cents; Plan 2 1.90 cents and Plan 3 1.359 cents. Plaintiff's Exhibit 6 admitted and read in evidence.

William V. Burnell, witness for plaintiff, testified:

Witness resides in Wollaston, a suburb of Boston and is employed as an appraisal engineer by Stone and Webster Engineering Corporation, which is a subsidiary of Stone and Webster, Incorporated. Stone and Webster Engineering Corporation is engaged in engineering and construction, together with preparation of reports and appraisals and does a very large quantity of electric utility work. Witness was graduated from Tuft's College in 1904 and was employed by Stone and Webster as a Superintendent of Construction from 1906 to about 1921. Subse-

quently witness was transferred to appraisal work for about four and a half years and has been appraisal manager for the Stone and Webster Engineering Corporation for a little over two and a half years. As Superintendent of Construction in the Stone and Webster organization, [fol. 347] witness did considerable utility work in the state of Indiana, in the New England states and in Texas. Witness has personally supervised the construction of $12,000,000 worth of utility property and has been directly responsible for appraisals of property amounting to a billion and a half dollars.

The testimony of this witness will be predicated upon the entire records of the Stone and Webster organization in so far as they are practical and material to the work at hand. Stone and Webster are frequently called upon by bankers and others to check up or test the validity of appraisals made by other persons. In this connection Stone and Webster have been requested to check up the correctness and reliability of the appraisal of the Wabash Valley Electric Company made by Messrs. Spooner and Merrill. Plaintiff's Exhibits 2-A to 2-H, inclusive, describe the material of the appraisal with which witness worked. Plaintiff's Exhibit 2-I was not checked personally by this witness but was used by a Mr. Sittinger. Plaintiff's Exhibit 2-H, the inventory of the Martinsville distribution system, was checked by witness. In reviewing the unit prices applied by Messrs. Spooner and Merrill, witness was able to arrive at a reasonable conclusion as to the level of prices and the fairness of the prices used by Spooner and Merrill. The comparison of the unit costs of Spooner and Merrill with the independently built up unit costs of Stone and Webster results in the determination that the unit costs of Stone and Webster would run about 5% higher than those used by Spooner and Merrill. Stone and Webster compute their prices on the theory that various general contractors would be employed while Spooner and Merrill proceed on the assumption that the Wabash Valley Electric Company would build up its own construction organization. Witness is of the opinion that the greater efficiency can be obtained through the general contractors' organization.

Plaintiff's Exhibit 7 covers the check and appraisal made by Stone and Webster. Stone and Webster have added a

general contingency item of $160,000 which ordinarily would be distributed under the head of structural costs. [fol. 348] This represents the difference between the estimate of Stone and Webster and that of Spooner and Merrill. It is not the resultant final difference between the two appraisals but is only the difference between what Stone and Webster would include under the head of structural costs and what Spooner and Merrill have included under that head. In the main, the property representing additions and betterments taken from the records of Haskins and Sells has been identified by Stone and Webster in the field and its general condition verified.

The allowance of cash for operating expenses is reckoned on the cost of six weeks of operating expenses after deducting therefrom the cost of purchased power, and in round figures amounts to $200,000. For the purpose of construction it has been assumed that the total amount of funds required would be obtained and interest paid from the date upon which the money was obtained. It has been assumed that the funds would be obtained from some affiliated company and would not be promoted by a separate organization going out to the public and that half of the money would be advanced at one time and the remainder at the end of six months, assuming a construction period of one year.

An interest allowance on unexpended monthly balances during the period of construction of 2% has been made. The money which would be necessary to raise is represented by the cost to reproduce new amounting to $5,935,138, less the item amounting to $540,000 designated as going value, since the cost of going value develops only after the property has gone into operation and involves a sacrifice of earnings rather than direct expenditure of capital. The cost of financing has been placed at the very conservative estimate of 5%. Going value is reckoned on the basis that over a period of four years an average of 25% of the property would be idle each year. 10% has been made as a minimum allowance for going value based on a total cost of reproduction new. Engineering cost is estimated at $80,000; legal and administrative expense during construction $65,000; interest upon money during con- [fol. 349] struction $175,000; taxes $25,000; organization $100,000; working capital $200,000; which includes meters,

transformers and stock which might, in most instances, be carried under the capital account; cost of financing $270,000; going concern value $540,000; all these estimates being based upon the personal experience of the witness and the experience and records of Stone and Webster.

In all probability the economics of the situation will require the abandonment of the plant at Martinsville within the course of the next few years. In order to permit an electric utility to continue to live and meet the requirements of growth in its territory, witness feels very strongly that a utility should have a return of at least 8%. Under present market conditions, of course, the return should be substantially higher because securities are a drug on the market, but year in and year out 8% is a fair return and would enable utilities to live and continue.

In the long run, service can be supplied to a town of the character of Martinsville cheaper on an interconnected large power system than it ever could be by a single local plant. Stone and Webster were employed to make this check upon the appraisal of Spooner and Merrill by the Wabash Valley Electric Company and without any connection or working arrangement whatever with Spooner and Merrill. On page (a) of Plaintiff's Exhibit 2-G prepared by Spooner and Merrill the total cost of reproduction of the Wabash Valley Electric system less depreciation is given at $5,556,091. The figure of Stone and Webster analagous to that is $5,828,507. From this sum the amount of $3,168,186 would be disbursed through the medium of general contractors. In this amount has been included the item of 6% as profit to the contractor on a cost plus basis. For a cost of financing Stone and Webster make an allowance of $270,000 while Spooner and Merrill have a figure of $182,185. The difference between these figures may be accounted for because Spooner and Merrill made no allowance for financing the common stock while Stone and Web-
[fol. 350] ster included that item.

Going value is difficult to ascertain and a major portion of it accrues by virtue of the fact that a new company of necessity has a large amount of property which must be built before sufficient load attaches to utilize it properly. This excessive building is prudent because it encourages growth and looks forward to an increased business. Every expanding company has to meet this item of going value

and in the instance of the present Wabash Valley Electric Company this expense was met out of normal dividend earnings since the company has shown a deficiency in this respect over the past six or seven years on the entire property.

The figure of $200,000 given by Stone and Webster for working capital is built up of about $40,000 cash; $160,000 for material and supplies. When Stone and Webster compared their group of unit costs with those of Spooner and Merrill it was found that Stone and Webster averaged about 5% higher for the entire group. Later it was found that Spooner and Merrill had included an allowance of 3% for general contingencies of which witness was not informed at the time the appraisal was prepared. Hence, the sum of Spooner and Merrill's structural cost plus their 3% allowance for contingencies would be approximately 2% less than Stone and Webster's estimate of structural costs in this particular appraisal. Stone and Webster's estimate of going value included nothing except costs of attaching and getting business on to the system. Other elements of going value may properly be considered, such as excellence of management. Plaintiff's Exhibit 8 is an appraisal of the electric distribution system in Martinsville.

All figures herein were arrived at in a manner corresponding to that used in Plaintiff's Exhibit 7. The totals given at the bottom of page 5 of Exhibit 8 represent the bare cost of reproduction of the Martinsville property new less depreciation, which is estimated at the sum of $85,953, from which is deducted approximately $1,500 on account of accrued depreciation. This depreciation was reached by determining that $1,500 would place the distribution sys- [fol. 351] tem in as good condition as if it were new.

Witness has prepared plaintiff's Exhibit No. 33 which is a study of defendants' Exhibit 106. In defendants' Exhibit 106 the maximum consumer demand of the system was taken as 22,518 kilowatts. In order to make it comparable with the kilowatt demand for Martinsville, this has been adjusted on the low side of the transformers at a 10% decrease, reaching the figure of 20,266 kilowatts. This net demand still includes the current demand upon the system by the Northern Indiana Power Company and the Attica Electric Company which, at precisely the same

hour as the entire system demand given, amounted to 8,098 kilowatts, which leaves a balance of 12,168 kilowatts. Thus the relation between the 678 kilowatt peak demand at Martinsville as used in Exhibit 106 and this net peak demand of 12,168 kilowatts amounts to 5.57%. This figure includes line loss which apparently was not taken into consideration in defendants' Exhibit 106. However, witness does not consider the percentage of 5.57 as being the proper method of adjusting the rates for any one unit. It fails to take into consideration the effect, of such a plan upon other individual communities, and it also fails to consider the fact that it is better to sell some power at a small profit rather than to lose the business entirely and receive no profits since the expenses of such a system are largely fixed.

Plaintiff's Exhibit 33 was admitted and read in evidence.

Assuming that witness knew the fair value of the power system property, also of the property within Martinsville, and that were the only information that was available to him, and he were requested to compute a rate base for the city of Martinsville, he would take the demands into consideration as he has done it with other power companies. Witness has known of the application of system peak demand against community peak demand as a method of allocating power system property to the community. Plaintiff's Exhibit 34, being a stipulation, referred to in the case in chief, was admitted and read in evidence. It was further agreed that defendants' Exhibit 140, being a copy of the contract of the Indiana Electric Corporation and the [fol. 352] Columbia Power plant, together with certain figures showing the peak demand of these companies, should be submitted to the master.

September 10, 1930.

CARL J. SITTINGER, witness for plaintiff, testified:

Witness resides at Winchester, Massachusetts and is an electrical and mechanical engineer being engaged in that work since 1910. Witness was graduated from the Massachusetts Institute of Technology and also took some special work there in civil engineering. Witness was employed by

John A. Stevens, consulting engineer in Lowell, Massachusetts, and since 1923 has been associated with Stone and Webster, an engineering corporation. Witness was project engineer in charge of construction of Montaup Electric Company which included a large power station and transmission lines and substations located partly in Massachusetts and partly in Rhode Island. Witness has made estimates of numerous construction projects amounting to more than $50,000,000. Witness has made appraisals of property for bankers and for rate cases.

Witness was employed in June and July of this year in checking the inventory of Spooner and Merrill. The Spooner and Merrill inventory was checked in the field as to various items which represent a large part of the total property, although the matter was not gone into in the same amount of detail as did the original appraising company. In this way about half the entire property was isolated in money value and it was assumed that the other half would vary in the same proportion as the half picked out at random. The practice of Stone & Webster is to have a specialist in each particular field, such as electrical division, structural division, hydraulic division, mechanical division, etc., work on the individual unit costs involved. Local labor conditions and quantities of property involved are all taken into consideration. It was found that Spooner and Merrill's estimates were about 5% under those of Stone and Webster the differences largely being attributed to labor estimates. Such estimates are based upon actual [fol. 353] cost of construction work, as experienced by Stone and Webster.

If the contingent cost element of $160,000 used by Stone and Webster was included so as to bring their estimate upon the same basis as that of Spooner and Merrill, then the Stone and Webster estimate of cost of reproduction would be $3,328,000 as compared to the Spooner and Merrill estimate of $3,168,000. Witness estimates that to put the entire property in 100% operating condition it would take the difference between $3,168,000 and $3,061,000. Stone and Webster's estimate of the structural cost of the Martinsville property, as shown by Exhibit 8, is $85,953 plus $4,200, while Spooner and Merrill's figure is $84,418.

On a 30′ 6″ pole witness estimates the unit cost as follows: Purchase price $7.85 delivered; unloading and stor-

age $.51; framing and gaining $.17; unloading and distributing to job $2.85; digging and setting poles $2.85; which totals $14.23 to which is added 12.2% as a proper share of the overhead, which brings the total cost of the pole up to $16.02. This estimate is about $3.00 higher than that of Spooner and Merrill on the same pole.

On other items Stone and Webster may be slightly lower than Spooner and Merrill owing to reduced purchase prices obtainable by large purchasing power. In witness' opinion, $5,935,138 represents the cost of reproduction of the Wabash Valley Electric Company property and to put that property in 100% operating condition would necessitate an expenditure of the difference between this figure and the sum of $5,828,000. The cost of reproduction new of the present Martinsville distribution system would be $121,353, and to put the present property in 100% operating condition would necessitate expenditure of the difference between that figure and $119,818. The management and condition of the Wabash Valley Electric Company system indicates that it is well cared for and ably managed. Plaintiff's Exhibits 7 and 8 were admitted and read in evidence.

Witness used unit costs in the Stone and Webster ap- [fol. 354] praisal which were made up by one of their men in their office who never saw plaintiff's property and who never came on the grounds.

In each instance Stone and Webster have figured the cost of reproduction of the property new and have therefrom deducted the sum which, in their opinion, would be necessary to place the present property in 100% operating condition, which amounts to the cost of reproduction new less present depreciation. As to automobiles listed as part of the equipment, witness has not depreciated any individual car but has simply deducted a straight percentage on all such equipment which, in the experience of witness, is sufficient to cover general depreciation. In the class of equipment covering motor vehicles a 25% item is allowed which, in witness' experience and in checks with automobile dealers, has been found to be the average cost of putting quantities of such equipment in 100% operating condition.

No particular portion of the land at the Martinsville plant could be set aside specifically as Martinsville local system only. A certain percentage might, however, be

ascribed for local purposes, and the balance attributed to the general power system. However, the switchboard located on the land is purely local Martinsville property and also the panels to which the distribution feeders are connected. The substation that connects to the 66,000 volt line from Lenore station is located out of doors and not in the generating plant at Martinsville. This substation is a part of the local distribution line.

Where two separate systems are interconnected and built and operated jointly, there is a saving in the overhead of each owing to the greater purchasing power of the two properties and general lowering of fixed charges. From an investment standpoint every element of property in the Wabash Valley Electric system is useful. For instance, the substation at Bainbridge is used for handling power to Roachdale and Groveland and is used for delivering power to the local Bainbridge system. In an interconnected sys- [fol. 355] tem every substation has its effect upon the load factor and the cost of power on the whole system. A power station built in excess of the required capacity will probably, for the time being, increase the total cost of power to the reservoir or "power pool" of the entire system, but as the load increases the cost will finally become lower. A power customer whose demand is high for a daylight load can be served at a much lower price than a residence consumer.

Witness, as an engineer, to determine the property used and useful in distributing electrical energy at the city of Martinsville would take the one cent interconnection rate and add to that the cost of distribution locally and the cost of distribution of the entire system and make an equitable allocation, thus determining the local rate. Without the affiliated system the one cent rate might not be available. It might be higher. In computing the final rate it would also be necessary to consider the fixed charges on the entire Wabash Valley Electric Company system. The net result of any such rate determination must be that the power consumer whose demand is high and whose demand comes when the system peak is low must be charged at a lower rate than the residence consumer.

It is almost impossible to allocate a particular portion of the whole system to the gateway price of any particular city. For instance, if the line came from the Columbia plant to

Martinsville and then up to Lenore, it would necessitate a 132,000 volt station at Martinsville serving Martinsville only, and it would be apparently unjust to charge all of that investment to Martinsville alone. Any such allocation may at one time be just and equitable and in the near future a great hardship, because in any well designed system there is a two way supply and if the direction of the current is changed it might change the whole question of allocation. Under such a system of allocation, it might be equitable to establish the same gateway price to all different towns and power consumers. The same gateway cost to all cities and towns and all power customers connected to this system would be bound to prevail if a gateway price is to be based on [fol. 356] the system as a whole. I should think that within the Wabash Valley property the same gateway price to all the gateways of the different towns and to each and all of the power customers, like coal mines and gravel pits, would be equitable.

A 66,000 volt substation will cost slightly more than twice as much as a 33,000 volt substation and a 132,000 volt substation cost slightly more than twice a 66,000 volt substation. There are no moving parts in a substation other than the circuit breaker. Thus the question of wear and tear is not important.

Witness has prepared three plans for the construction of an independent steam plant at Martinsville to supply the hibit 9. All prices of current are estimated delivered to the switchboard before passing out into the distribution lines.

Plan 1 contemplates the addition of a 750 kilowatt turbine to the present plant.

Plan 2 contemplates replacing two boilers and the addition of a turbine.

Plan 3 contemplates an entirely new plant and relocation along the White River. Plaintiff's Exhibit 9 admitted and read in evidence. Although plan 3 might show a slightly higher cost per kilowatt hour for the first year, over a period Martinsville load, which are indicated by plaintiff's Ex- of time it would justify the additional expenditure because of ultimate reduction in costs. The rate of return is figured in each instance at 8%.

Witness has prepared a study of the cost of installing a Diesel electric generating plant in Martinsville which is shown in plaintiff's Exhibit 25. Witness has had actual

contact with Diesel plant operations at the Clifton and Morenci plants of the Phelps-Dodge Company in Arizona and the Miami Copper Company at Globe, Arizona, and has also had contact, during a week's test of a plant at Amite, Louisiana. He has also had direct contacts with the operating records of various other plants.

[fol. 357] Under plan 1 witness has an estimate of installation submitted directly by the McIntosh-Seymour Company of $141,000. Under this first plan the operating cost is 1.48 cents per kilowatt hour. Under the second plan which contemplates the installation of additional refinements in machinery the cost is given as 1.27 cents per kilowatt hour.

These are the minimum costs and would require a crew of seven men, a chief engineer, an assistant operating one shift and on the other two shifts an assistant engineer with a labor assistant, making six men for the regular crew, to which has been added a utility man to relieve each man in turn one day each week so that each man works six days a week eight hours a day. 5% depreciation is allowed predicated upon the life of a Diesel engine, which is ten to twelve years, and the life expectancy of building and other equipment in accordance with the usual steam plant depreciation. 2% has been allowed for taxes and interest.

Plaintiff's Exhibit 25 admitted and read in evidence.

Ervin J. Kowalke, witness for plaintiff, testified:

Witness resides in Indianapolis, Indiana, and, since June, 1923, has been employed by the Wabash Valley Electric Company and affiliated companies as rate statistician. Witness has made a study of the records of the Wabash Valley Electric Company and finds that if, in the year 1928, the rates ordered by the Commission had been in effect in Martinsville, the revenue based upon the business actually done in 1928 would have been reduced $14,566.33. This figure was reached by computation based upon each individual bill rendered to customer.

In December of 1928 a change of rate was put into effect in Greencastle and Clinton. This changed rate, if applied to the revenues in Clinton and Greencastle, would have resulted in approximately $3,900 reduction for each of the two towns for the month of December. If the adjusted rate was figured

[fol. 358] on the entire year of 1928 for these towns, the reduction would have been $32,001.37. Plaintiff's Exhibit 10 is a summarized result of applying the rates ordered by the Public Service Commission for Martinsville to the customers' billings over the period from May 31, 1929 to May 31, 1930 of the towns of Martinsville, Clinton, Greencastle, Jasonville and Sullivan. This exhibit was computed upon the individual bills of each customer for each month of the year on the rates in each town ordered by the commission to be established in Martinsville.

In so far as population is concerned, all of these towns fall into the same class. The first column of Exhibit 10 assumes that all rates now effective shall remain effective and that the rates established by the commission are optional. For certain customers it would be cheaper to retain the old rate than to follow the commission rate.

Plaintiff's Exhibit 10 admitted and read in evidence.

The rates put in effect in December, 1928, in Clinton and Greencastle were voluntary rate schedules filed by the company and were not the result of any rate hearing. Prior to December, 1928, the rates at Clinton and Greencastle were higher than the corresponding rates in Martinsville and the change was made for the purpose of standardizing rates in towns of practically the same size. Greencastle and Martinsville are considered as of the same general classification. The Greencastle and Clinton rates were approved by the Public Service Commission without any hearing.

September 11, 1930.

B. H. Lybrook, witness for plaintiff, testified:

Witness resides at Indianapolis, Indiana; was graduated from Purdue University in engineering and was thereupon employed in various subordinate positions in the operation and construction of power plants, substations, transmission lines, and general power equipment for Allis-Chalmers Company; was employed in the electrical power department of the United States Steel Corporation at Gary; in 1921 was employed in various capacities with Northern Indiana [fol. 359] Power Company, and since 1925 has been chief

operating engineer for the Wabash Valley Electric Company and associated companies.

Witness has figured the line loss for the year ending May 31, 1930 on electricity delivered to the Northern Indiana Power Company by the Wabash Valley Electric Company and finds the line loss to be approximately 2.1%. For the year ending May 31, 1930, witness finds the line and transmission loss on deliveries by the Wabash Valley Electric Company to the Attica Electric Company to be 8¾%. For the same period the line and transmission loss on deliveries by the Wabash Valley Electric Company to cities and towns located along the Clinton-Lafayette transmission line is found to be 12.4%. The line and transmission losses for the remainder of the Wabash Valley Electric system for the same year were found to be 16.1%.

These percentage losses were arrived at in the case of the Northern Indiana Power Company by taking the amount of energy transmitted to them by the Wabash Valley Electric Company for the period and arriving at an average load in kilowatts. The load current was then applied to the total resistance of the line to obtain the losses. The line loss for the Attica Company and for the Indiana Power Company is approximately the same but the Attica Company is subject to a transformation loss which does not apply to the Northern Indiana Power Company. For the year ending May 31, 1930 the Northern Indiana Power Company took 29,136,300 kilowatt hours. For the same period the Attica Company obtained 6,204,652 kilowatt hours.

L. B. Schiesz, witness for plaintiff, testified:

Witness resides at Indianapolis, and is vice president of the Wabash Valley Electric Company and certain other subsidiaries of the Central Indiana Power Company; his principal duty is to take charge of operating records. Witness has been engaged in accounting in connection with utility operations for the past 17 or 18 years. Witness has made up a statement of energy received from the Northern Indiana Power Company at Lafayette, Indiana, by the Wabash [fol. 360] Valley Electric Company for the year ending May 31, 1930, which is evidenced by plaintiff's Exhibit 15. The

total kilowatt hours received during that year amount to 1,585,400.

Plaintiff's Exhibit 16 is a statement of the energy generated and purchased by plants and companies during the year ending December 31, 1928, and showing the amounts of current purchased by the Wabash Valley from the different generating plants. Plaintiff's Exhibit 17 gives similar data for the year ending May 31, 1930. Plaintiff's Exhibit 15 shows a delivery of 1,585,400 kilowatt hours to the Wabash Valley Electric Company by the Northern Indiana Power Company during the year ending May 31, 1930, but Exhibit 17 showing energy purchased during the same period does not show the Northern Indiana Power Company as one from whom purchases have been made for the reason that the sales by the Wabash Valley Electric Company to the Northern Indiana Power Company exceeded the deliveries and, since the one cent rate prevails in each instance, the matter was handled by book entry. Therefore, the actual sales of the Wabash Valley Electric Company to the Northern Indiana Power Company are approximately a million and a half greater than indicated by Exhibit 17.

Plaintiff's Exhibit 18 is a record of the common stock dividends paid on outstanding common stock of the Wabash Valley Electric Company over a seven year period from June 30, 1923 to June 30, 1930. Plaintiff's Exhibit 19 is a comparison of construction expenditures subsequent to June 26, 1923, with the proceeds from securities authorized for construction expenditures up to April 30, 1930. $3,255,-924.22 represents the expenditures for additions and betterments or plant property charges subsequent to June 26, 1923. These are net expenditures after deducting the value of the property retired. The sum of $2,156,320 represents the actual cash which the company has realized on the sale of securities which have been issued in conformance with the commission orders listed on page 3 of Exhibit 19. In no case were any securities sold at a price less than the authorized discount and in one or two instances were sold a little higher than the discount which the commission au- [fol. 361] thorized. $889,200 par value of authorized bonds, preferred stock and common stock, have not been issued. The $1,094,000 which appears on page 1 of plaintiff's Ex-

hibit 19 as unfunded expenditures, was largely advanced by the Central Indiana Power Company on open account.

Up to April 30, 1930, there has been an excess of construction expenditures over the amount realized from the sale of securities, plus the par value of authorized but undisposed of securities in the sum of $272,859. Page 1, plaintiff's Exhibit 19, shows the book value of the Wabash Valley Electric Company property as carried on the books of the company to be $5,235,900.94, of which $4,940,686.94 is electric utility property. The book value figure does not include any sum for working cash or material or supplies on hand. $256,000 par value of common stock is held as treasury stock and $145,600, par value of common stock has never been issued. No dividend has ever been paid on either of these groups of stock. No common stock or any other security of the Wabash Valley Electric Company has been sold or issued without payment in the form of cash or property at a valuation fixed by the commission. The Central Indiana Power Company has never charged the Wabash Valley Electric Company for interest on advances made to it. Since October 31, 1925 only a total of 6% in dividends has been paid upon the common stock of the Wabash Valley Electric Company. This occurred during the year 1927 when a 6% dividend was paid.

Plaintiff's Exhibits 19-A to 19-L are certified copies of orders of the Public Service Commission of Indiana as referred to in column 2 of page 3 of Exhibit 19. Plaintiff's Exhibit 20 is a summary of gross income before provision for depreciation, meaning the difference between company's gross revenues and operating expenses (exclusive of taxes and depreciation) and the percentage ratio of the gross income plant property, franchises and working capital, by periods from May 31, 1923 to June 30, 1930. $303,000 is estimated as the working capital requirement and includes working cash capital, material and supplies [fol. 362] and any franchises in reckoning book value. For the month of June, 1923 11.19% of book value of the property was available to pay depreciation return upon investment and other items as indicated, and for the period of six months ending June 30, 1930, 5.82% of the book value was available for depreciation and return upon the money invested. Plaintiff's Exhibit 21 is based upon a study of

the company's business for the year ending December 31, 1928, and shows net additions and betterments from December 1, 1927, the time of the Spooner and Merrill appraisal up to December 31, 1928. During this period additions and betterments at Martinsville, considering only local property, amounted to $24,459.38. The fifth item on page 11, Plaintiff's Exhibit 21, shows a figure of $34,829.99 which covers what is termed the Martinsville district, which includes certain property in the rural territory. During the year 1928 a monthly average of materials and supplies at cost pice amounted to $183,862.83. For power delivered to the gateways of the cities served by the Wabash Valley Electric Company it is necessary to generate or buy 38,000,-214 kilowatt hours in order to deliver the necessary 34,096,-000 kilowatt hours. For the deliveries to Northern Indiana Power Company and Attica Electric Company, it is necessary to buy 42,238,000 kilowatt hours in order to deliver 37,687,000 kilowatt hours as required. All of these figures are reached by applying the average system efficiency of 10.7% to both groups. If the figures of 2.1% as loss on the Northern Indiana Power Company deliveries, and 8.75% on the Attica deliveries, were applied it would lessen the figure as to the quantity of current purchased for delivery to the Northern Indiana Power Company and Attica Company and increase the amount of current necessary to be purchased to supply the local distribution systems of the Wabash Valley Electric Company because the figure of eighty million four hundred and some odd thousand kilowatt hours is the total which was generated and purchased by the Wabash Valley Electric Company during the year ending December 31, 1928.

During this year 2,511,125 kilowatt hours were metered to the city of Martinsville on the low side of the substation [fol. 363] transformer. On the basis of the system average it was necessary to purchase approximately 10% more than this amount in order to furnish the current to Martinsville. Of the amount of 2,511,125 kilowatt hours metered to Martinsville it was possible to deliver 2,148,179 kilowatt hours to consumers within the town of Martinsville, which represents a local distribution efficiency of 85.55%. 15% loss of local distribution represents an efficient system and is not excessive. On a book value figure of $5,026,437 based

on Spooner and Merrill's appraisal of September 1, 1927, the company earned a return of 5.54% for the year which ended December 31, 1928 on the depreciated value of the property. Included in the earnings of the company is the current which was purchased from the Dresser plant at one cent per kilowatt hour and delivered to the Northern Indiana Power Company and the Attica Company at one and a quarter cents. This condition continued up to December 1, 1929, at which time the interchange price on all kilowatt hours became one cent.

The prices included in Exhibit 21 are reckoned on the September 1, 1927 basis. By eliminating deliveries to the Northern Indiana Power Company and the Attica Company and giving the other business of the company the benefit of the differential of one quarter cent between buying and selling price, a gateway price on the low side of the transformers of .024996 cents per kilowatt hour is reached. For the year ending December 31, 1928 the item of $95,105.47 represents the gross revenue derived from the electric utility business in Martinsville. During this period the total operating expense and taxes were $91,783.89 representing power cost on 2,511,125 kilowatt hours delivered on the low side of the transformer at a rate of approximately 2½¢ and various other items of distribution, utilization, comercial uncollectible accounts, new business, all being part of the local expense. An item of $2,604 is indicated for taxes, but actual last year's tax payment was somewhere between $11,000 and $12,000. To the $91,783.89 item for operating expense has been added an allowance of 4% depreciation, giving a total operating expense, tax [fol. 364] and depreciation item of $96,680.79, resulting in a deficit during that year of $1,575.32.

If the rate established by the commission (as testified to by Mr. Kowalke) had been applied the result would have been a deficit for that year of $16,141.65. Assuming that the Clinton and Greencastle rates filed in December, 1928, had been in effect a full year and that the rates ordered by the commission for Martinsville had been in effect for Martinsville for that year the result would have been a decrease in the net earnings during that period of $46,567.70. Adjusting this on the net income during the period results in finding that the company would have earned under these

conditions $232,266.51, which amounts to only 4.62% return on an investment of $5,026,000.

Plaintiff's Exhibit 22 represents a set-up similar to the one just testified to for the year ending December 31, 1928, but Exhibit 22 is applied to the year ended May 31, 1930. For deliveries made to the Northern Indiana Power Company a line loss of 2.1% has been applied. A line loss of 8.75% has been applied to the Attica deliveries. These percentages have been extended so as to show the number of kilowatt hours which must be purchased in order to deliver the 35,340,952 kilowatt hours to those companies. To this extent Exhibit 22 is more accurate than the corresponding page of Exhibit 21. For the kilowatt hours delivered to cities and towns located on the Clinton-Lafayette line a percentage of 12.4% as testified to by Mr. Lybrook, has been applied to compute the amount of current necessary to purchase in order to supply the necessary 3,780,800 kilowatt hours to the various town gateways. For the remainder of the Wabash Valley system it is necessary to furnish 37,252,-162 kilowatt hours on the low side of the gateway transformers. To this amount is applied the line loss of 16.135% as testified to by Mr. Lybrook. The rates eestablished by the Wabash Valley Electric Company for Martinsville prior to the time the commission established a rate, gave a return of 3.9% on a property value of $135,402. On applying the [fol. 365] estimated reduction in the rates ordered by the commission a deficit is shown of $10,621.89.

Plaintiff's Exhibit 15, Exhibit 16, Exhibit 17, Exhibit 18, Exhibit 19, Exhibits 19-A to 19-L, Exhibit 20, Exhibit 21, and Exhibit 22 are admitted and read in evidence.

Plaintiff company considers the rate put in effect in Martinsville on July 1, 1927, a fair rate. Exhibit 21 shows a deficit in 1928 of $1,575.32 at Martinsville under that voluntary rate.

The gateway price of .024996 cents is the average rate necessary to pay operating expenses and interest charges with 8% return and should be used as the average cost for current delivered to all points on the Wabash Valley Electric system, except the Attica Company and the Northern Indiana Power Company. Witness used Spooner and Merrill's appraisal in all of his exhibits. Plaintiff's Exhibits

21 and 22 for the purpose of arriving at that gateway price excluded Attica and the Northern Indiana Power Company because these companies should be given a different gateway price for wholesale power.

Central Indiana Power Company owns the common stock of Wabash Valley Electric Company and of all the other subsidiary companies, namely, Indiana Electric Corporation, Northern Indiana Power Company, Attica Electric Company and a group of small companies. Plaintiff was a subsidiary of Central Indiana Power Company in 1923 and after, during the time when the Public Service Commission orders authorizing securities were issued. Central Indiana Power Company owns every dollar's worth of securities which plaintiff has issued and outstanding, whether in bonds, preferred or common stock. Central Indiana Power Company sells its own collateral bonds and preferred stock, predicated on the securities of all of its subsidiaries, to the public. Plaintiff's securities are taken directly by Central Indiana Power Company without an intervening agency, and it still owns them. There was a specific group of securities authorized to acquire property of the Martinsville Gas and Electric Company along with the Spencer Light Power Heat and Water Company, Gosport Company, etc., [fol. 366] but the commission did not fix a specific unit of value on the Martinsville property at that time.

The preferred and common stock of all subsidiary companies is owned by Central Indiana Power Company, and was taken over without any expense to the several subsidiaries, except fees paid to the Public Service Commission. Central Indiana Power Company is a holding company but its charter has been amended empowering it to operate as a public utility, but it never did operate.

Out of a total of 85,217,894 kilowatt hours purchased by the Wabash Valley Electric Company there were 77,945 kilowatt hours generated by the local plants.

If dividends were paid on plaintiff's stock during any of the years shown in Exhibit 18, they would have been paid to Central Indiana Power Company as owner of the stock. Central Indiana Power Company advances money to plaintiff from time to time to finance its capital expenditures on its properties, which is paid back as it has the money to pay back.

The cost of getting and attaching customers has always been charged to operating expenses on plaintiff's books. All expenses incurred in connection with the New Business Department are charged to operating expenses. No part of these charges is transferred to capital account. No portion of new business expense has been charged to capital account since June, 1923, when plaintiff took the property over. On page 2 of Exhibit 21 an item entitled "New Business" represents a charge of $3,500.31 as an operating expense. This is the expense incurred within the corporate limits of Martinsville for the year ending December 31, 1928, in canvassing and soliciting power contracts, commercial lighting contracts and residence service customers. Since 1923 whatever cost has been incurred in procuring and attracting new business has never been reflected in the capital account as kept by the Wabash Valley Electric Company. In arriving at the gateway price in Exhibits 21 and 22 no item for legal or engineering expense connected with rate hearing was included. Exhibit 21 includes an [fol. 367] item for rate case expense, but witness does not have the figure. The item of "General and Miscellaneous Expense" at page 1-B of Exhibit 22 includes $6,235.98 charged by plaintiff to Martinsville for the year ending May 31, 1930, under a ten year amortization of the total expenses incident to this rate inquiry. It is planned by plaintiff to charge to Martinsville about $60,000 of rate case expenses incurred to May 31, 1930. The total amount of rate case expenses has not yet been determined. As investigation charges, attorneys' fees, engineering fees and other things come in they are charged to this account. All expenses, legal, engineering and commission charges in connection with the merger of the Central Indiana Power Company and the T. H. I. & E. Traction Company were paid for and carried on the books of the Central Indiana Power Company and no part of them was charged to plaintiff. The subsidiaries were never charged any part of the merger hearing cost. The rate case expenses up to May 31, 1930 are approximately $60,000. A portion of the item chargeable to new business is in reality devoted to the current replacement of lost customers so, in many respects, it is an expense necessary in order to keep up the present volume of business. Witness is the Comptroller of Central Indiana Power Company. The Central Indiana Power

Company purchased the Wabash Valley securities but in order to do so it must sell its own securities and thereby incurs expense which makes it necessary for the Central Indiana Power Company to purchase Wabash Valley Electric securities at a reduced price in order to meet the expense. The sale of 77,500 shares of Central Indiana Power Company 7% preferred stock as of May 31, 1927 incurred an average selling expense of $6.62 per share. The expense of selling bonds of the Central Indiana Power Company runs from four to six points per share, depending on market conditions.

None of the cost of making the September 1, 1927 inventory and appraisal by Spooner and Merrill, which is the basis of the appraisals in this case, was charged against the [fol. 368] Wabash Valley Electric Company. It was put into the cost of the merger hearing by the Central Indiana Power Company and the T. H. I. & E. The Commission fee of $1,005 charged against the Wabash Valley Electric Company is included in the $60,000 item of expense for this rate case.

In addtion to the $6.62 selling expense per share of the Central Indiana Power Company's preferred stock there were discounts suffered ranging from seven to twenty points per share which were in addition to the $6.62 expense.

Witness testified that electrical energy was delivered by the Wabash Valley Electric Company to the Northern Indiana Power Company in monthly periods beginning with June, 1929, as follows:

June	2,031,200	Kw. H.
July	3,080,900	"
August	4,150,300	"
September	4,304,000	"
October	4,437,100	"
November	3,142,300	"
December	1,602,500	"
January, 1930	753,100	"
February	451,500	"
March	1,510,200	"
April	1,125,200	"
May	2,548,000	"

all of which totals 29,136,300 kilowatt hours. The one and a quarter cent kilowatt hour delivery charge for current

delivered to the Northern Indiana Power Company was lowered to one cent on December 1, 1929.

Witness has examined defendants' Exhibits 114, 115, 116, 117, 118, 119, 120, 121, 122 and 123 and finds that certain items do not reflect the true cost. On page 19 of Exhibit 114 fuel consumption during the year is shown to cost $31,142.97. This sum should have been carried to page 13 of the report, line 2, but has been entered there at $29,392.56. The total of steam generating apportioned cost is shown to be $45,330.98. This figure should have been carried to page 9 of the report on line 2, but instead the figure $29,392.56 has been used. The item of $56,180.73 given as the total cost of steam power generation, apparently does not include labor costs, costs of water, and an item of miscellaneous expenses, and $5,500 for maintenance [fol. 369] appearing on page 13 so that a correct unit report is not presented. Exhibit 115 on page 19, line 19, shows a fuel cost of $21,917.86. Referring back to page 13, line 2, the cost of fuel is shown as $26,506. Exhibit 116 on page 19 shows fuel cost to be $13,083.97 and on page 13, line 2, fuel cost is shown to be $14,473.94. Witness has investigated the additions to the local Martinsville distribution system from November 30, 1927 to December 31, 1929 and found that the net cost of additions, less retirements, amounted to approximately $24,000.

Similarly, net additions from December 31, 1929 to April 30, 1930, amounted to $1,500. Witness has prepared plaintiff's Exhibit 28, which allocates deliveries over the Clinton-Lafayette line to the Northern Indiana Power Company and the Attica Company and to the other Wabash Valley Electric Company customers. On page 14 of this exhibit all items of property are appraised and allocated to transmission lines and substation property. These items are set forth in the cost of reproduction new less depreciation under the valuation as set forth in the appraisal of Spooner and Merrill, to which has been added as going concern value 15% of the reproduction cost new figure and 3.8% as cost of financing. Deliveries on the Clinton-Lafayette line have been ascertained and it is found that 89.44% of the power is delivered to the Northern Indiana and Attica services and 10.56% to the local customers of the Wabash Valley. These percentages have been applied to the values as set forth and the property allocated

between the Northern Indiana Power Company and Attica Electric Company and the various local users.

Witness has not considered any of the benefits which accrue to the Wabash Valley Electric Company by virtue of its interconnection at this point, but has simply given a mathematical allocation. Taxes have been allocated on the same percentages. Producing energy to supply the Northern Indiana and Attica companies at a one cent rate results in a total cost of $365,609.05, which added to the allocated portion of transmission line and substation oper- [fol. 370] ating expense gives a total cost of $393,855.94, which is chargeable to the Northern Indiana-Attica service.

On page 11 of the exhibit all revenue which the company received from the actual delivery of energy to the Attica and Northern companies has been eliminated. Thus on the property as a whole valued at $4,650,112, a return of 4.91% is reached. Then on page 6 of this exhibit on the basis of the elimination of the Clinton-Lafayette line and other equipment a gateway cost is estimated to which a net operating expense, including taxes for the remainder of the power system property is added and 4% for depreciation and 8% for return arriving at a total energy cost at the gateway of the Wabash Valley Electric Company's cities and towns of $936,546.36. Dividing that by the kilowatt hours delivered on the low side of the transformers a gateway price of .022897 cents per kilowatt hour is reached.

On pages 1-b and 1-a the costs allocated to Martinsville under the rates ordered by the commission in order 8894 leaves a deficit of $7,420.80 for the service rendered in Martinsville locally. This deduction is estimated as applied to the actual consumption in the year ended May 31, 1930.

Plaintiff's exhibit 28 admitted and read in evidence.

Plaintiff's exhibit 29 is a correction and adjustment on apportionment of working cash and material and supplies as developed from defendants' Exhibit 102.

Plaintiff's Exhibit 29 admitted and read in evidence.

In witness' opinion the only way in which a company can operate and do business is to have cash on hand sufficient to meet all the bills of the company for thirty days, since the

customers are not billed until they have used current for thirty days and it would be necessary to pay the company from whom the energy was purchased at some time between the first and tenth of the succeeding month for all the current consumed during the preceding month.

Customers are usually about 15% delinquent in the payment of their bills. The payment of power bills must be financed by working cash capital on the same theory as if [fol. 371] the company were generating its own steam, and paying for coal and labor. The peak demand of the Northern Indiana Power Company on the Wabash Valley Electric system occurred on September 30, 1929 at 8:00 P. M. and amounted to 12,800 kilowatts. The Attica Electric Company peak demand occurred on July 31, 1929 at 9:00 A. M. and amounted to 1,456 kilowatts. Plaintiff's Exhibit 30 is prepared for the purpose of showing the unit costs on the kilowatt hours for this service by using the maximum demand of the entire Wabash Valley Electric system and developing a percentage by using the maximum demand of the separate customers, which is the same process used by the commission in regard to Martinsville. 10% has been allowed for line and transformer loss. By computation the Northern Indiana Electric Company is allocated $1,604,222 on a return base of $1,809,939. Attica on a depreciated basis of $183,049 is given a return base of $206,-522. Thus by using defendants' theory of apportioning the peak demand of the individual consumer to the peak demand of the system it is found that a unit cost of 1.95 cents per kilowatt hour should be charged Northern Indiana Power Company, which is higher on this basis than the rate for the city of Martinsville. Similarly, the cost per kilowatt hour for the Attica Electric Company is found to be 1.54 cents.

Plaintiff's Exhibit 30 was admitted and read in evidence.

Plaintiff's Exhibit 31 is a correction and adjustment of defendants' Exhibit 130 so as to correspond with the facts as to the contract for power between the Indiana Electric Corporation and the Columbia Power Company. Defendants' Exhibit 130 prepared by Mr. Husselman is predicated upon the idea that additional energy can be purchased at .0023 cents per kilowatt hour. In fact, the increased de-

mand upon the Columbia power plant of 2,650 kilowatts would involve an increase of payments for the life of the contract involving an annual payment of $74,412. This annual payment would have to be made whether any of the current were used or not, whereas, the current can be produced in the local plants eliminating only the return upon the investment at a cost of $39,633, resulting in a [fol. 372] saving of $34,779 by operation of the local generating plants. Figuring back on this basis with 8% capitalization these plants have an economic value of $434,738.

Plaintiff's Exhibit 31 admitted and read in evidence.

Plaintiff's Exhibit 32 is a correction and adjustment of defendants' Exhibit 106. In applying the two demands which were used by Mr. Abbett in Exhibit 106 witness finds that the percentages were 2.26 on average demand and 3.35 on peak demand. The exhibit adjusts defendants' figures as given in Exhibit 106 on the basis of these percentages and is made by way of correction. Any increase in power consumption over the lines of the Wabash Valley Electric Company means an increase in expense because the Wabash Valley Electric Company has to pay a fixed price for each kilowatt hour and has to assume line loss and the Wabash Valley is also forced to make additional capital expenditures as the load increases in various cities.

Defendants' Exhibit 139 being the contract between the Indiana Electric Corporation and the Columbia Power Company was admitted and read in evidence.

The current generated by the local plants of the Wabash Valley Electric Company is sent in to the general power transmission loop and is impossible to trace and is valuable in so far as it adjusts the peak demand between the Indiana Electric Corporation and the Columbia Power Company thus making available the one cent rate. These local plants were acquired in the process of development and were not built for the purpose of standby service originally.

September 12, 1930.

Hugh W. Abbett, witness for defendants, testified:

Witness resides at Oaklandon, Indiana. Witness was graduated from Purdue University, Lafayette, Indiana, in

June, 1916, and is a licensed engineer in the state of Indiana and is now employed by the engineering department of the Public Service Commission of Indiana having worked in that capacity since September, 1919. During [fol. 373] the time witness has been connected with the Public Service Commission he has been connected with about 100 appraisals of public utility properties. Witness' connection with the Wabash Valley Electric Company properties began about 1920 or 1921. Witness helped appraise the property at the time the Wabash Valley Electric Company was purchased by its present owners in 1923 or 1924. Witness appraised the local property at Martinsville for the rate hearing before the commission which is now involved and also appraised or had charge of the appraisal of the Wabash Valley properties in connection with the merger hearing before the commission in 1928 and 1929. At the time of the merger hearing witness had charge of the appraisals of all of the Central Indiana Power Group as well as the T. H. I. & E. system.

Defendants' Exhibit 100 is an inventory and appraisal of the local distribution property in Martinsville as of May 1, 1930. This inventory was prepared in connection with the engineers of Spooner and Merrill, Incorporated, resulting in practically an agreed inventory. Plaintiff's Exhibit 2-H being Spooner and Merrill's inventory of the local Martinsville property is essentially the same as defendants' Exhibit 100, except that defendants' Exhibit 100 contains certain property which Spooner and Merrill allocated to the Morgantown transmission line, but which witness has included as a part of the Martinsville local property. Defendants' Exhibit 100 is built up upon unit costs.

The items listed in the inventory were noted, quotations obtained for the various materials, freight allowance made, and an allowance of approximately 3% added to take care of storage and purchasing. Labor prices were reckoned at forty cents an hour for common labor; sixty-five cents an hour for linemen; fifty cents an hour for truck drivers; fifty cents an hour for meter setters; and sixty-five cents an hour for foremen and subforemen. On copper wire, prices were obtained as of May 1, reckoned in carload lots. Prices on transformers and meters were based upon experience and cost as shown by the books of the Wabash

Valley Electric Company. It was assumed that there was [fol. 374] no electric property in any part of the Wabash Valley system and the Martinsville local plant was reproduced along with the rest of the Wabash Valley properties and that the distribution system and transmission system would be built under company supervision. Copper wire and poles are the biggest cost items of property with copper wire probably costing a little more than poles. Meters would probably be next in cost.

Witness personally inspected most of the property inventoried in Exhibit 100 to note depreciation, and had the records of the other engineers who inspected the remainder. Witness observed the condition of the property for the purpose of determining what should be deducted for depreciation from his cost new figure.

The unit cost on a 30′ 6″ northern cedar pole is reckoned as follows: Price of pole f. o. b. $6.50; Freight $1.33; 3% allowance for purchase and storage which makes the cost of the pole delivered at Martinsville $8.06. For unloading the pole a labor item of .129 of a dollar has been allowed. The cost of roofing the pole is estimated at 16¢. The cost of hauling to the place of installation is figured at .201 of a dollar. To dig the hole in which the pole is set is estimated at $1.838; for erecting the pole and tamping the dirt a price of $1.893 is given. An additional charge of .048 of a dollar for hauling the pole one mile is added, which gives a total unit cost of $12.33. This unit price for the pole has included, as a part of the labor item, about 4% for insurance and 3% for tool wear. The item of gaining the pole for crossarms has been included in the unit price of the crossarms rather than the pole itself.

The labor set-ups involved are those which, in the experience of the engineering department of the commission, have been found a practical method of doing this particular kind of work. The individual performance of doing each piece of work is not necessarily considered but the splitting up of the work in this method and adding the totals is comparable to the total labor rates or amount of labor which the companies experience in similar intervals. For in- [fol. 375] stance, on the item of roofing the pole the crew for that operation consists of one lineman at sixty-five cents an hour with insurance at the rate of 4% and tool wear at the rate of 3% added, making a figure of seventy

cents per hour. On a 30' pole an allowance of .233 man hours is reckoned which, multiplied by the crew rate, gives .163 of a dollar. The item of loading and distributing is estimated with a labor crew of one subforeman at sixty-five cents an hour; two ground men at forty cents an hour; one truck driver at fifty cents an hour; insurance at 4%; tool wear at 3%; one two ton truck at $1.00 per hour and one trailer at $1.50 after being multiplied and divided back by the man hours gives .813 cents per man hour.

After the unit cost is reached there is no percentage applied on top of it to take care of contingencies and general supervision. However, in the summary of Exhibit 100 an item is allowed for omissions, contingencies, engineering costs, law expenses, miscellaneous construction expenditures, taxes, interest and superintendence. Roughly speaking, the total of these is around 15% of the total cost of land, plant and equipment. A six months' period for reproduction was allowed for the property covered in Exhibit 100 and interest is figured on the average period within the time allowed for the construction of the distribution system at Clinton, Greencastle, Martinsville, etc. In order to build up the unit price on copper wire No. 4 triple braid weather proof, a quotation was obtained of 15.87 cents per pound as of May 1, 1930. The weight has been transformed into a price per thousand feet and thereby a price of $137.44 per mile reached. To this has been added 2% for sag and waste bringing the figure to $140.19. To this has been added a labor item for stringing the wires of $33.94 giving a unit cost per mile of $178.34, which includes a percentage for compensation insurance, storage purposes and a 3% item for purchase and storage. The labor item on this estimate is based on a gang with one foreman at sixty-five cents an hour; six linemen at sixty-five cents an hour; six ground men at forty cents an hour; one truck driver at fifty cents an [fol. 376] hour; making a total crew labor cost of $67.70, to which is added 4% compensation, 5% tool wear, foreman's expenses of $2.50, one ton truck at $1.00 per hour, making $9.00 a day; a Ford half ton truck at forty cents an hour making $3.60 per day, giving a total crew cost of $88.89, which reduced to a man hour cost equals .705 dollars per hour. Wherever possible, unit prices of defendants' Exhibit 100 have been built up in essentially the same manner as described. Thus, the cost of reproduction of poles,

towers and fixtures is given as $26,670. The figure of $75,398 represents the sum total of the unit prices as applied to all items shown in the inventory, but does not include the land at Martinsville, which was set up in another exhibit under power system. To this cost of reproduction is applied a rate of 15% to cover undistributed costs which gives a total of $85,337 cost of reproduction as of May 1, 1930.

In reckoning the item of depreciation of the present property at Martinsville an inspection was made of the actual property and an estimate reached as to how much of the life of the useful property had been consumed. For instance, the average pole was found to have 60% of useful life left. Similarly, all other equipment was valued and an estimate reached of $72,757 as the cost of reproduction new less depreciation of the local property at Martinsville.

In defendants' Exhibit 101 the item of materials and supplies as it appears at the bottom of page B of defendants' Exhibit 100 is taken as a part of what is ordinarily termed working capital. Thus with materials and supplies on hand, less cash needs to be available. By figuring the total operating expense of the entire Wabash Valley system in 1929, and deducting therefrom the power cost and taxes, and figuring the average expense for one month's operation, it is found that on the entire system a total of $208,274 represents the combined items of working cash and material which is 4.08% of total property book value as of December 31, 1929. Thus, on the local property the same percentage has been applied which reaches a total of $2,968 for working capital, material and supplies. 10% has been allowed for [fol. 377] going value, giving a grand total of $83,000 as shown in defendants' Exhibit 101 for the cost of reproduction new of the local Martinsville property as of May 1, 1930, less accrued depreciation. Nothing has been allowed for financing cost. In opinion of witness the cost to reproduce the local Martinsville property new at May 1, 1930, less the ten accrued depreciation is $83,000, and he believes that represents a fair rate base for that local property. Witness made an inventory and appraisal of plaintiff's property located outside of Martinsville and referred to as power system property, as shown by Exhibit 103. The inventory used is as of September 1, 1927 and capital additions between that date and December 31, 1929 are added.

Defendants' Exhibit 103 is an inventory and appraisal of the power system of the Wabash Valley Electric Company as of September 1, 1927, with capital additions from that date to December 31, 1929. The inventory and appraisal as of September 1, 1927 was prepared from the inventory and appraisal used in the previous merger case and is based upon witness' interpretation of the instructions given to the auditing department of the Wabash Valley Electric Company in regard to the classification of the electric properties of the Wabash Valley. These instructions were interpreted as including the local generating plants at Martinsville, Clinton and Sullivan, as a part of the general power system. The plant at Greencastle, with exception of the transformers, is listed as local property. Witness had made an inventory and appraisal of plaintiff's entire property for a merger proceeding. The power system property in Exhibit 103 was segregated from the general inventory upon a classification made by witness according to his interpretation of plaintiff's instructions to its Auditing Department for charges relating to power system property. Local distribution systems are not used or useful in witness' opinion for bringing electricity to Martinsville, and were excluded under application of these instructions to the Auditing Department. These instructions relate to separation of accounts [fol. 378] so as to keep the accounts relating to local and to power system property separate. Witness included in power system the three generating plants at Martinsville, Clinton and Sullivan. The plant at Greencastle, with exception of transformers, is listed as local property. All items thus segregated by witness to power system property are listed in Exhibit 103. On Page 45 of Exhibit 103 a 30′ 6″ pole is given a March, 1929, unit price of $12.56 as compared to a May 1, 1930, price for a like pole in Exhibit 100. The difference in pricing dates and the longer haul of the pole in Exhibit 103 account for the difference in these unit prices. Inspection of power system property to ascertain its condition and to determine deductions due to depreciation was made in the same way as in case of the Martinsville local. Net additions were not depreciated. The cost to reproduce the power system new, less depreciation as of December 31, 1929, is $2,476,237 without the net additions, and is $2,542,345 with net additions. This figure is reached by pricing the September 1, 1927 inventory as of March 1, 1929 and then adding the sum of the net additions from September 1,

1927 up to December 31, 1929. The $2,476,237 figure includes structural overheads and does not include going value, working cash or material and supplies, but these items are included in defendants' Exhibit 104.

Defendants' Exhibit 104 contains additions for working capital, going value, etc. The figure of $2,222,942 shown on Exhibit 104 is the amount remaining after deduction from the power system of the depreciation value of the generating plants located at Clinton, Sullivan and Martinsville, except such equipment as is necessary in operating the property. On page 2 of Exhibit 103 the depreciated value of these properties is listed as $309,388. With the three plants included the resultant valuation for the power system is given as $2,868,366. As an economic addition to the Wabash Valley system the local plants at Martinsville, Sullivan, Clinton, etc., are not worth over $175,000 to $200,000. Assuming that the Wabash Valley Electric Company can purchase all the electrical energy it needs at a rate of one cent per kilowatt hour, witness sees no economic advantage in [fol. 379] maintaining and operating the three plants. As the result of witness' study of the Wabash Valley Electric Company he has determined that the peak demand on the whole system was reached at 8:00 A. M. on September 4th and amounted to 22,518 kilowatts. This demand is limited to that of the Wabash Valley Electric Company's separate entity and does not include any demand upon the system of interconnected or affiliated companies. The maximum demand during 1929 for the Martinsville district appeared in November, date unknown, and amounted to 720 kilowatts which has been apportioned between Martinsville and Morganstown by giving Martinsville 94.2% of the total, producing a demand for Martinsville of 678.2 kilowatts. The demand of the system was reckoned by determining the power fed into the system from the various generating sources, the grand total of which is 23,600 kilowatts. From this was subtracted the energy absorbed by the Indiana Electric Corporation at Lenore which was 1,112, which gave the figure of 22,518 kilowatts. In witness' opinion, the practical method of allocating the power system properties to the Martinsville local properties would be to apply the ratio of local peak demand to the peak demand of the system.

Defendants' Exhibit 106 indicates the result of the application of this ratio. Thus the peak demand at Martinsville has been taken as 3.01% of the peak demand on the whole system and this percentage of the cost of reproduction new, less depreciation of the power system, has been taken as Martinsville's properly allocated share of the power system giving a figure of $86,338 as Martinsville's allocated share of the power system property, which includes the cost of reproduction, less depreciation with additions for working capital and going value. To this figure is added the sum of $83,000 for the reproduction of the Martinsville local property as shown in Exhibit 101 which reaches a figure of $169,338 as the rate base for Martinsville, which includes an allowance for working capital, going value, etc. The power system appraisal is given as of December 31, 1929 and the local Martinsville appraisal as of May 1, 1930. During the year 1929 the maximum demand during each month for the Martinsville district was as fol-
[fol. 380] lows:

January	624 kilowatts
February	600 kilowatts
March	576 kilowatts
April	600 kilowatts
May	672 kilowatts
June	576 kilowatts
July	600 kilowatts
August	600 kilowatts
September	624 kilowatts
October	672 kilowatts
November	720 kilowatts
December	696 kilowatts

Allocating these maximum demands for the Martinsville district on a basis of 94.2% as representative of the Martinsville local use, the following figures were reached for the year 1929:

January	571.6 kilowatts
February	556.8 kilowatts
March	546 kilowatts
April	572.4 kilowatts
May	641.1 kilowatts
June	550.1 kilowatts

July	574.2 kilowatts
August	566.4 kilowatts
September	595.3 kilowatts
October	637.1 kilowatts
November	678.2 kilowatts
December	646.6 kilowatts

Defendants' Exhibit 107 is a report of the commission as to the records of the Wabash Valley Electric Company for the period from January 1, 1929, to December 31, 1929.

The accounting figures used by witness in his exhibits are taken from the audit designated as Exhibit 107. It is here admitted by plaintiff that the item of $3,384.80 added by witness to power system expense is a part of power system expense.

In opinion of witness the rate of return is irrespective of the value that may be fixed for the property. In his opinion 7% would be a fair rate of return. Depreciation should return only the original amount invested. In opinion of witness a composite rate of 4% per annum depreciation upon the cost new, less accrued depreciation, of the depreciable power system property is sufficient.

The figure of $1,288,173.08 in Exhibit 108 represents the amount of money necessary to pay the operating charges, [fol. 381] 4% annual depreciation and a return of 7% on a value of $2,868,366 and taxes on the power system property. This sum divided by the total substation output in 1929 of 75,811,628 K. W. H. results in a cost per K. W. H. of 1.699 cents. This kilowatt hour cost is reckoned at the low side of the power system transformer. This rate of 1.699 cents if applied to the current delivered by plaintiff at the gateway of Martinsville and to the current delivered to plaintiff's other consumers who get electricity off of its power system would produce a sufficient amount to pay all operating expenses of the power system property, all taxes and fixed charges, 4% annual depreciation and a 7% return on a value of $2,868,366. If the appraised value of the three generating plants were excluded from the valuation of the power system the gateway cost would be less than 1.699 cents. The kilowatt hour represents a unit of consumption and is the measure of the amount consumed.

Defendant's Exhibit 109 is a graph showing deviation in copper prices up to August 1, 1930. As of March 1, 1929

the price is given a base of 21.125 cents which is the price used by witness in Exhibit 103. In August, 1930, this price had dropped to 12.75. If the appraisal had been made as of August 1, 1930 the appraisal of the power system property would roughly be $135,000 less.

Defendants' Exhibits 100, 101, 102, 103, 104, 105, 106, 108 and 109 were separately admitted and read in evidence.

The percentage of 3.01 reached as the ratio between the peak load at Martinsville and the peak load of the entire system is simply a figure arbitrarily taken by witness and is not an average. It was witness' idea that the only way in which power system property could be allocated to local Martinsville property would be on the basis between kilowatt hours used by the whole system and kilowatt hours used by Martinsville. The peak demand of the Wabash Valley Electric Company was 22,518 kilowatt hours on the high side of the transformers but on figuring the Martinsville peak demand the low side of the transformer was used. If the transmission and line loss for the Wabash Valley system as a whole, eliminating Attica and Northern Indi- [fol. 382] ana Power, of 16% plus is taken from the 22,518 kilowatts delivered to the Wabash Valley Electric Company then the amount of current which could be distributed on the low side of the transformer would amount to only 18,950 kilowatts. Then deducting the demand of the Attica Electric Company leaves 12,168 kilowatts which would be comparable to the 678 kilowatts delivered to Martinsville on the low side of the transformer, which would increase Martinsville consumption to about 5½% of the total of the power system.

This same comparison of figures between the voltage delivered to the Wabash Valley system on the high side of the transformer and that delivered to the local distribution systems on the low side of the transformer was carried throughout witness' computations at a figure of 3.01%. The book value which witness used in the merger case for the Wabash Valley Electric Company was about $1,000,000 higher than the book value which witness used in this case for the purpose of Exhibit 102. Both figures included all the properties of the Wabash Valley Electric Company, electric, gas and water. Witness took a percentage of 4.08

on the merger valuation of $5,102,000 for cash materials and supplies and applied this same percentage to the lower appraisal valuation, in this case resulting in a figure about $40,000 less than was used in the merger case for working cash, supplies, etc.

Witness was graduated from Purdue in 1916, and went into the army in December, 1917. During the interim witness was at the border with a Purdue battery for two or three months and then came back and taught school at Lawrence, Indiana, during the remainder of the year. Immediately after graduation witness watched switches and other small matters incident to the operation of one of the plants of the Indianapolis Light and Heat Company. After witness got out of the army in 1917 he went almost directly into service with the Public Service Commission of Indiana.

When witness speaks of labor rates he means labor rate per man per hour which estimates were based upon reports [fol. 383] witness received from companies which gave the total number of poles, total labor costs and labor rates. A hypothetical number of men which it was thought would be used was applied and the rate per man hour figured on that basis. None of these estimates showed the number of poles per day that would be set from any given number of men. The peak demand in each of the towns throughout the system would be in varying proportions to the peak demand of the power system. Thus, if the peak demand of each of the various municipalities were added to each other the result might be a total in excess of the peak demand of the whole system. In reaching labor estimates witness had general discussions with engineers in the operating or construction department of the various utilities, as to the size of the crew necessary to do various types of work and how much work a crew could do in one day. The crew of twelve men which witness adopted to string copper wire was used on the transmission system as well as on the distribution.

The power system at Bainbridge substation was inadvertently omitted by witness from his inventory. Outside of this point there is no controversy between witness' inventory and that of Spooner and Merrill. Witness' appraisal is taken as of May 1, 1930, and that of Spooner and Merrill took a date exactly one year prior. The power sys-

tem inventory and appraisal was, however, priced on a basis of March 1, 1929.

Insulators in the power system were valued on a 95% condition and those in the Martinsville local property were valued at 90% condition. Witness does not recall seeing any cracked insulators. This reduction is not based on the actual condition of the particular insulators. It is based only on the observation which shows they are not new. The Clinton to Lafayette line has been built five or six years. The poles in this line were given a rating of 90% and were all treated poles. Probably there is not much difference between the strength of such a pole now and what it was when it was new.

Witness has reached a unit price of $6.97 for each of 1318 meters. In the merger case the figures taken were based [fol. 384] upon the Duncan meter which is made at Lafayette and has a lower freight rate than any of the other meters and is also a little cheaper. Witness has figured that he could install a meter for forty cents in Martinsville. Spooner and Merrill's corresponding figure is $1.05. Witness reached the installation cost of the meter by working out a certain program of installation with a labor crew of a fifty cent an hour second class lineman, a fifty cent an hour meter setter, and a forty cent an hour helper, making a labor cost of $14.00 a day, to which was added 4% for insurance, 3% for tool wear, and a ton and a half truck at $5.50 a day, making the total cost $20.48 a day. This crew cost is divided and two-thirds is set aside for running the service, that is to say, the wires, into the house and one-third to the act of setting meters. It has been estimated that 17 services and meters will be installed per day. The meters are estimated to be in an 85% condition, taking into account witness' theory of obsolescence. In Exhibit 101 none of the property of the Wabash Valley Electric Company which is located in the power plant built in Martinsville is included as a part of the local property although the switchboard panels are largely used for local purposes. Under the setup which witness has adopted, 3.01% of the switchboards are allotted to the Martinsville local property and 96.9% to the general power system. Witness has estimated the boilers in the plant at Martinsville to be in 20% condition as compared to the Spooner and Merrill estimate of 60%. Witness has estimated the piping at

Martinsville to be in 40% condition as compared to Spooner and Merrill's estimate of 70%. All of witness' estimates have been influenced to considerable extent by the length of service of the property. The turbo-generator at Martinsville is estimated to be in 50% condition. Witness was not cognizant of the fact that the generator had been completely overhauled in 1927. The switchboard in the Martinsville plant is given a 50% rating. If a new switchboard had been installed in January or February of 1929, witness would have valued it at 100% as of March 1, 1929. Witness does not know whether such new switchboard was installed.

[fol. 385] Witness found that net additions to power system property between September 1, 1927, to December 31, 1929, were $490,000. He determined that amount primarily from the books of the company. Witness used the company's deductions with the exception of one or two places that he repriced as he had carried it in the inventory, in which case the witness believes the company figures were somewhat higher. If it were assumed that a replaced item of property included in the inventory at $100 was carried by the Company at $150, witness would take such item out of the inventory at $150 if he could not locate the item in the inventory. The effect would be to reduce witness' amount of net additions to a certain extent, but witness would not say that $490,000 is lower than it should be. This figure is slightly lower, the exact amount of which he does not know, than it would have been had witness repriced these retirements, as Spooner and Merrill did, at the price at which he has inventoried them.

In estimating the depreciated value of the substation, which is simply galvanized steel frame, witness would consider the items of inadequacy, obsolescence and physical depreciation to be about equal. Witness believes that the system load will continue to grow and considers this in reckoning obsolescence of equipment. Witness has not included power costs and taxes as part of the system operating expenses because witness is of the opinion that the Wabash Valley Electric Company will not have to pay for power until after it is furnished by the generating plant by which time the power would have been used up by customers who will pay their own bills and enable the utility to pay its bills on practically the same date, the

result of which is that the customers of the Wabash Valley Electric Company furnish the working cash for the payment of power bills. Witness has assumed that power bills ordinarily would not have to be paid for six months. On page 27, Exhibit 107, the total of Martinsville operating expense is estimated to be $65,921, which is composed of a power cost of $32,800; taxes $2,527; local expense less power cost and taxes $30,593.82. If a ratio of Martinsville operating expenses were taken against the system operat-
[fol. 386] ing expenses the result would be a percentage slightly in excess of 8%, while the ratio of kilowatt hours used by Martinsville to the kilowatt hours metered into the system by the generating plant is only about four plus per cent. If the working cash capital of the Martinsville local property is proportioned according to the ratio of Martinsville operating expense to the power system expense the result would be $3,800, as compared to the estimate given of $2,968 for working capital, material and supplies.

The company's books from which the inventory was made show that on December 31, 1929, there was merchandise in the Martinsville property for sale to domestic users of the value of $3,595.26. Similarly, $1,270 worth of meters were shown to be in stock at Martinsville, as well as $1,652.05 worth of transformers on the same date which, in total, shows that on December 31, 1929, there was $6,517 worth of equipment on hand in Martinsville as compared to the $2,900 item shown in Exhibit 101 for working cash capital. In his first exhibit 100 witness allocated Martinsville district material and supplies, 85% to Martinsville local and 15% to Martinsville outlying. The estimated gateway price of 1.669 cents is based on the 75,000,000 kilowatt hours delivered on the low side of transformers throughout the Wabash Valley Electric system instead of the 84,000,000 kilowatt hours which were delivered by the generating company. Thus, in reaching the gateway price of 1.669 cents witness has included the 30,000,000 kilowatt hours sold to the Northern Indiana Power Company and the 1,364,000 kilowatt hours sold to Attica.

The result of this computation is to place the price at the gateway at Martinsville on exactly the same basis as the price at the switchboard of any coal mine, gravel pit or any other large industrial consumer of electricity. Thus, the Northern Indiana Power Company which con-

sumes 30,000,000 kilowatt hours per year is put in the same class with Martinsville, which uses two and a half million kilowatt hours per year. Witness doubts that the Northern Indiana Power Company could take any power from the lines of the Wabash Valley Electric Company if it were charged 1.669 cents per kilowatt hour.

Witness does not know of any company at the present [fol. 387] time from whom the Wabash Valley Electric Company could get electricity at the price of one cent if the person or company from whom it got it did not have a large demand in addition to the Wabash Valley demand. If the figure of 1.669 cents per kilowatt hour were charged the Northern Indiana Power Company for current delivered to it, it could probably get its electricity elsewhere, and not buy through plaintiff, which would leave plaintiff with the difference between what it is now taking and what it is delivering to Northern Indiana Power and Attica Electric Company. If that difference were 35,000,000 kilowatt hours, witness would not divide that amount by the expense of the entire system to get an average Kw. H. price. He would not think it right to divide and allocate this entire system expense directly against plaintiff's own customers when the system has been built to take care of the greater load and capacity. If these expenses were incident only to the delivery of current to plaintiff's own customers, then they should be divided by the kilowatt hours so delivered.

The three local generating plants in Martinsville, Sullivan and Greencastle, which witness appraised as having a depreciated value of $309,388, which is approximately a 40% depreciation from cost of reproduction new, and which witness previously gave an economic valuation of $175,000 to $200,000 materially contribute to the feasibility of the one cent rate at which the Wabash Valley Electric Company purchases its current supply from the Indiana Electric Corporation. The interconnected hook-up enables the Wabash Valley Electric Company to furnish Martinsville with electricity more cheaply than it would be able to furnish the same amount of current from an isolated local plant in Martinsville.

It would not be practical to attempt to serve Martinsville with its present plant without the addition of spare equipment. Witness believes that if the Northern Indiana

Power Company were required to pay the rate of 1.669 cents per kilowatt hour at Lafayette that the Wabash Valley could not afford to pay that price for current interchanged at that point. Thus, when the power supply from [fol. 388] the north becomes available the Wabash Valley Electric Company would not be able to utilize that power because of the high interchange rate. There are some large power users, like coal mines and gravel pits, on plaintiff's system. The average price contemplated by witness' plan is 1.699 cents. The company might not apply an energy cost of 1.699 cents; it might use a demand charge and a different energy charge. The average energy price might be 1.699 cents. The company could not get more than an average cost of 1.699 cents over all, energy and demand, if the average is applied to all the business of the system. Witness does not know what the average bills of plaintiff's large power users figure. In his opinion some could pay 1.699 cents, although it is possible some of the larger ones could not. It might average that. Witness does not contemplate putting everybody—big power users and Martinsville—on the same average of 1.699 cents. If less than that is gotten from some, more than that has to be gotten from others to get the average. Witness can see where it would be good business for the company to give some of its power customers a lower rate than 1.699 cents and make up the difference on some of its smaller companies, which have no chance to generate their own electricity. In witness' opinion this average rate is a good guide in fixing rates in a system like plaintiff's when it is necessary to consider one town out of a bunch of fifty.

The item of $191.00 in Exhibit 100 for law expense is aside from administration and legal expense, and is the local law expense at Martinsville of some local attorney that might take care of local matters during construction. Witness thinks that sufficient. The item of $1,508 in Exhibit 100 for administration and legal expense is 2% of the cost of reproduction, less structural overhead costs.

The item of $1,058 for omissions and contingencies does not include a charge for unfavorable weather conditions, but most of witness' plant set-ups are not based on the maximum amount a crew can do a day, but on the average, which takes into account matters like unfavorable weather

conditions. The average rate of work used by witness allows for striking incidental boulders, iron or something [fol. 389] in an alley encountered in digging holes for posts and foundations for buildings. Witness thinks he took into account imperfect coordination between crews and operations by not assuming the ultimate limit of what one crew might do under perfect conditions. This is included in the unit crew set-up. Witness anticipated delay in deliveries by providing for storage in his unit prices. Witness figured on building the local property at Martinsville as a part of plaintiff's system as a whole. Nothing has been included in the appraisal for cost of financing the company. The witness would expect in establishing a company that a cost of financing would be incurred. Nothing has been included for unforeseen construction difficulties or unfavorable weather conditions.

For going value of the Wabash Valley system witness has simply taken 10% of the present depreciated reproduction value of the property without including the generating plants so that, in effect, as the value of the property depreciates going value also becomes smaller. A substantial part of the Wabash Valley property has been rebuilt and considerable new property added within the past ten years. Notwithstanding this fact, witness has taken $470,000 from the reproduction new value of the power system property as depreciation. In witness' opinion a 4% allowance per year for depreciation would be sufficient to cover depreciation over a period of years.

The figure of $8,684 for materials and supplies in Exhibit 100 includes an item of merchandise in the approximate sum of $3,595, consisting of electric stoves, electric irons, and other equipment that the company might have to sell to its customers. None of this merchandise is considered necessary by witness for the operation of the utility as a utility. This merchandise is the same as an independent dealer might handle.

In plaintiff's Exhibit 21 at page 4, where a gateway rate is computed, all of the gateways within the system are treated on a parity, after first deducting the amount of current delivered to affiliated companies. In arriving at a gate- [fol. 390] way cost in Exhibit 22 the communities and coal mines are treated on a parity.

If the idea of transmitting current from south to north, to affiliated companies, were eliminated from plaintiff's past and future, and a power system sufficient and adequate only for serving the people behind the gateways within the Wabash Valley area were contemplated, it would be the opinion of the witness that the system would be of a considerably different design. It would not necessitate as large a line from Clinton to Lafayette, possibly such a line could be eliminated, and the line from Lenore to Martinsville would not be necessary.

If the various peak demands of the individual communities were added and if the total should reach twice the peak demand of the power system peak demand, then the peak demand at Martinsville being the same would be only 1.505% of the total peak demand. Thus the power system property allocated to the Martinsville local distribution system would be only half as great as allowed in witness' figures. By "peak demand" is meant the maximum usage of electricity within a given time, such as in a fifteen minute interval. It is the maximum flow of energy at one time. This does not mean quantity, it means a rate of flow.

Line losses do not enter into the maximum demand figures used by witness. If line losses occurring over a period of time were deducted from the rate of flow the result would not represent rate of flow.

The percentage of 3.01 by which witness allocated the general power system property to the Martinsville distribution system in defendants' exhibits was reached by dividing the peak demand at Martinsville by the peak demand of the power system. In the opinion of the witness the ratio of Martinsville peak demand to system peak demand has a reasonable relation to the portion of the power system property that is used and useful in bringing electricity to Martinsville. In witness' opinion, the property referred to in plaintiff's Exhibit 2-H, page (A), as line structures and [fol. 391] equipment at Martinsville plant for local Martinsville use only, at a valuation of $10,936, is not properly allocated by plaintiff but should be included as a part of the power system proper.

The Bainbridge substation which witness omitted in his estimate was allowed in the merger case as depreciated at $3,016. This amount should be added to the estimate of the power system appraisal which was given in defendants'

Exhibit 103. This was adjusted by another mistake which included a small portion of the substation at Greencastle which had been retired. The value of this substation is calculated to be $4,364 as of March 1, 1929 so that if this figure were taken out the result would be a net reduction in the total.

In fixing a price of forty cents for the installation of small meters witness contemplated that the individual householders would supply a suitable place to hang the meter so that all that would need to be done would be to fasten the meter in place, and connect at most the ends of eight wires. The figure which witness fixed, in which a crew of three men were estimated to run 17 services and set 17 meters in one day and drive their own truck, was based on information which witness received during interviews with different people on different occasions. Witness cannot recall exactly who they were.

The switchboard and other property in the Martinsville plant which served chiefly the local distribution property, witness included under the general power system valuations and are thereby evaluated at 3.01% as a part of the general power system property allocated to the Martinsville local system. The corresponding panels in the Greencastle substation are allocated to the Greencastle local substation. In all such cases witness followed the bookkeeping system of the Wabash Valley Electric Company and where such equipment was listed as local witness allocated it to the local property.

The result of this is that in some instances 3.01% of such equipment is allocated to Martinsville while in other cases no part of such property is allocated to Martinsville but the whole item is contained under the local distribution system. [fol. 392] In classifying Martinsville local property witness did not always consider it on the basis of property used and useful.

In witness' opinion, the Wabash Valley Electric system should suffer a transmission loss of about 2½% and a well designed transformer should not suffer the loss of over 3% to 4%. Thus, depending on the length of the line the loss on the low side of the transformer should be from 4% to 6%. This estimate does not include the loss sustained in stepping up the current at the Dresser plant which might increase the loss to 6% or 8½%.

The transmission line of the Wabash Valley Electric Company in the lower left hand corner of plaintiff's Exhibit 1 extends from Sullivan to Hymera, Coalmont, Jasonville and Clay City. In witness' opinion, no part of this line is used or useful in supplying electrical energy to the city of Martinsville. Similarly, the branch line from Clinton to Rockville, Bloomingdale, Montezuma, Hillsdale, Dana, St. Bernice, West Clinton and Blanford is not directly used or useful in supplying energy to the city of Martinsville. However, all such lines are indirectly valuable in that they contribute to making a success of the general Wabash Valley System.

If Martinsville were standing absolutely alone it would necessitate a high powered transmission line from Dresser plant to Martinsville and also a transmission line from Lenore substation to Martinsville if two way service were to be provided, but such a system would be prohibitive in expense. Martinsville must buy from some such system as this in order to get advantage of low rates. Exhibits 23-A and 23-B prepared by witness are offered and read in evidence.

September 16, 1930.

HARRY V. WENGER, witness for defendants, testified:

Witness has been chief engineer of the Public Service Commission for two years and prior to that time was a part of the engineering department of the commission for three and a half years. Witness was graduated from Purdue University in 1909 and was employed in various construc-[fol. 393] tion work throughout the west and made the appraisal of the Quimaca Railroad before the railroad commission of California. In 1920 witness was with the tax board of Indiana for four and a half years making appraisals of various industrial plants. Since witness has been with the Public Service Commission he has directed the making of all appraisals made by the engineering department.

The commission makes an attempt to keep records and data regarding construction costs which are changed and varied so as to conform with actual construction practice.

Unit costs used in appraisals of the Engineering depart-

ment of the Public Service Commission are made up from continuous studies wherever accurate data can be obtained. Sometimes this is analyzed out in detail from the company's figures. Other times our system of calculations is used to check against these figures, and if irregularities are found corrections are made in our set-ups. Set-ups are continually changed to agree with actual practice. Our figures are an endeavor to give the total cost of reproducing a property. They are the same type of figures that a contractor would use in his estimating department. Data so gotten is kept in files of the Commission. There are seventeen engineers in this department under supervision of witness. He is familiar generally with plaintiff's properties. An appraisal was made in 1928 under witness' direction of plaintiff's properties in connection with a petition for merger.

The appraisal in Exhibit 100 of the Martinsville local property was made under general direction of witness, and he is familiar with it. In opinion of witness the cost to reproduce the Martinsville local property at May 1, 1930, exclusive of going value and working capital, is $86,845 as shown in the summary in Exhibit 100. Witness inspected some of this property, and believes the deductions made in Exhibit 100 on account of depreciation are logical and reasonable.

Witness has some familiarity with the appraisal of plaintiff's power system property in Exhibit 103 as with Exhibit 100. His opinion is that the cost to reproduce new the power [fol. 394] system property at December 31, 1929, is $2,476,237, without the net additions between that date and September 1, 1927, and without going value and working capital. Witness is generally familiar with the power system property and believes the accounts deducted in Exhibit 103 are right. The generating plants at Martinsville, Clinton and Sullivan are included in Exhibit 103. He thinks it is proper to include them because they are owned by plaintiff, but their real use is for the transmission loop and not the plaintiff itself, or for Martinsville directly. In opinion of witness it is logical to allocate 3% of the appraisal value of the power system property to Martinsville. This percentage is arrived at in Exhibit 110, which witness prepared. The figure 2,186,564 K. W. H. in Exhibit 110 represents net sales in Martinsville in 1929 and is taken from

page 47 of the commission's audit, designated Exhibit 107. The figure 72,242,790 K. W. H. is from the same source, and represents plaintiff's entire net sales. The ratio between these figures is 3.027. This percentage applied to the power system reproduction figure of $2,868,366 makes an allocation of $86,825 to Martinsville. In witness' opinion plaintiff's three small generating plants should be abandoned in the near future, for there is considerable dump power on the market today, and large plants are being constructed at the present time so that there is going to be ample power throughout the state of Indiana, and these plants will not need to be operated for generating current to supply this pool.

In opinion of witness the figure of $169,825 in Exhibit 110 is a fair rate base for Martinsville. Witness is familiar with Exhibits 101 to 109 and says that in his opinion that the methods, principles and figures in them are correct. Witness has seen most of the property, and the little he has not seen would not alter his judgment of value, because the men in his department have seen the property and he has confidence in their ability, and it is impossible to see every piece of property. Witness says 7% would be a fair earning on plaintiff's property. In spite of the fact that some plants have "dump power" available the building of power plants is continuing. "Dump power" is handled by con- [fol. 395] tracts which permit one concern to buy power at its option provided the other has power available to sell. Neither party is obligated either way. In the merger appraisal the value of the total properties, including gas and water, of the Wabash Valley Electric Company was given as $3,710,455 depreciated as of March 1, 1929, to which should be added certain additions between September 1, 1927, and March 1, 1929. These figures do not include the going value, working cash material or supplies and contain certain gas and water properties which should be allocated out.

In the appraisal for the merger case Duncan meters were used as the basis of the unit cost. In the present estimate in building up the unit price of $6.97 for the five ampere hundred volt 60 cycle meter a General Electric meter was used. The list price of this meter is $16.65, to which is applied a discount of 55, 8 and 4 which multiplied on the list

price gives $6.62 as the meter price f. o. b. Indianapolis. The base price for the Westinghouse meter is $6.59; the base price of the Sangamo meter is $7.35; the base value of the Duncan meter is $6.60. The unit cost is built up on the General Electric meter at a cost f. o. b. at Indianapolis of $6.62 plus four cents for freight, 1½% for testing and numbering, 3% purchase and stores, and an item of one cent for hauling and storage which makes a grand total of $6.97.

Defendants' Exhibit 110 was admitted and read in evidence.

September 17, 1930.

EVAN WILLIAMS, witness for defendants, testified:

Witness resides at Indianapolis, Indiana, and for past three and one-half years has been field auditor on the staff of the Public Service Commission. Prior to his association with the commission he was employed for 11 years with the Indiana Service Corporation at Fort Wayne, which is a public utility operating in Indiana. During the latter half of this employment he was employed in the treasury department with duties connected with the compilation of reports to be filed with the Public Service Commission.

[fol. 396] The accounting department of the Public Service Commission made audits of plaintiff's books and records, under supervision of witness. These audits are reported in Exhibit 107 covering the year 1929, in Exhibit 111 covering 1928, and in Exhibit 112 covering June 1, 1923 to December 31, 1926, and they contain balance sheets, income accounts, analysis of balance sheet accounts and operating expenses and other data.

Defendants' Exhibit 113 on page 2 contains a summary for the various months during 1929 beginning with February and ending in December of the revenues under the rates in effect at Martinsville and those ordered by the Public Service Commission in order No. 8894. During this eleven months period the total income of the Wabash Valley Electric Company at Martinsville is given as $91,257.46 under the present rates now in effect at Martins-

ville. The revenue which the same consumption would have produced under the rates ordered by the Public Service Commission in order No. 8894 is given as $77,966.94. The revenue for January, 1929, is found on page 78 of Exhibit 107 and residence lighting under the present rate amounts to $2,759.42 on page 82 of the exhibit. If the proposed rates under order No. 8894 had been in effect the income from residence lighting would have been $2,349.01. The total for the month under the present rate would have been $8,215.91.

Exhibits 119-123 are certified copies of parts of annual reports filed with the Public Service Commission respectively by the municipalities of Goshen, Lawrenceburg, Linton, Tipton and by Madison Light & Power Company of Madison, Indiana. They all own their distribution system within the town, and purchase their power at a gateway price. Based on the information in those exhibits, witness prepared Exhibit 124 to show the population of each municipality, the quantities purchased by each, the total cost, the average cost per kilowatt hour, and from whom purchased. All this information came from reports filed with the Public Service Commission. The input at Martinsville for the comparable period, 1929, was 2,532,798 [fol. 397] kilowatt hours. Martinsville has a population of about 5,500.

Defendants' Exhibits 114, 115, 116, 117 and 118 were the basis of witness' computations as to the cost of generating electrical energy in 1929 by municipal plants in municipalities of a size comparable to Martinsville. Exhibit 114 is Portland, Indiana; Exhibit 115 Rushville; Exhibit 116 Columbia City; Exhibit 117 Greenfield, Indiana; Exhibit 118 Peru, Indiana; defendants' exhibit 125 represents a summary of the use of these local generating plants, the cost per kilowatt hour as given is the bare cost of generation and does not include insurance, working cash capital, material and supplies or going value.

The figures given are comparable to plaintiff's Exhibit 5, table 13, and also comparable to the figures on page 28 of plaintiff's Exhibit 9. Plaintiff's exhibit 6 prepared by Mr. Hamilton, on page 3, under items 18, 19 and 20 has figures comparable to those prepared by plaintiff.

Defendants' Exhibits 107, 112, 111 and 113 admitted and read in evidence. Defendants' Exhibits 114, 115, 116, 117,

118, 119, 120, 121, 122, 123, 124 and 125 were admitted and read in evidence over the objections of plaintiff. (Subsequently excluded.)

Defendants' Exhibit 126, being a certified copy of the return for the year 1930, covering the 1929 tax payment period of the Wabash Valley Electric Company as on file with the State Board of Tax Commissioners, was read and admitted in evidence.

Defendants' Exhibits 114, 115, 116, 117, 118, 119, 120, 121, 122 and 123 are simply copies of papers on file with the Public Service Commission of Indiana and witness does not of himself, know that they are accurate or properly prepared. The costs included in these reports of the municipal plants include nothing for depreciation, return, working cash, general supervision or any incidental expense except the actual operation of the plant described.

[fol. 398] September 18, 1930.

Roy Husselman, witness for defendants, testified:

Witness resides at Cleveland, Ohio. Attended Purdue University in engineering a short time and attended night school at Carnegie Tech School, Pittsburgh. His experience has been largely practical beginning in 1904. In 1912 witness was employed by the department of heat and light of the city of Cleveland, Ohio. During his employment witness had charge, under the chief engineer, of the designing and laying out of the municipal electric plant which involved an expenditure of about three million dollars. Witness rebuilt and rehabilitated the water and light plant at Berea, Ohio. In 1927 witness was associated with some people and bankers in the purchase of small utility property. Since 1927 witness has made various appraisals of utility properties and was employed by the Departmen of Public Utilities of Massachusetts in two cases in regard to the property in the city of Worcester and the city of Cambridge. Witness worked in conjunction with Mr. Wenger, chief engineer of the Indiana Public Service Commission, in regard to the merger of the Central Indiana power group system of which the Wabash Valley is a part.

Witness was retained by the city of Martinsville about February, 1930, under a contract whereby witness' compensation is contingent upon the rate reduction in the city of Martinsville. Witness first visited the city of Martinsville in November, 1929, and inspected the engineering plant and substation. Subsequently, witness went into Martinsville and made an inspection of the distribution system.

Witness has made a study as to the cost of generating local power in Martinsville with a Diesel engine plant, which is contained in defendants' Exhibit 127. As of August 30, 1930, the cost of such a generating plant proper would be $163,000, including allowances for engineering, superintendence, organization costs, materials, supplies and working capital. The estimate is built up upon quotations on the various machinery involved and an estimate of [fol. 399] the cost of constructing a brick building approximately 60′ x 66′ which is estimated at $20,179; $1,460 was allowed for incidentals; 5% of a sub-total of $117,150 was allowed for engineering; 6% per annum is allowed on the construction period of four months; ⅛ of the annual operating expense is allowed for working capital. This estimate is based upon the theory that a distribution system is already on hand ready to receive the energy. Nothing is allowed for going value since it is assumed that the customers would already be attached and awaiting service. A return of 7% on the total cost of $163,000 is given as a reasonable return.

A chief engineer has been provided for the plant at an estimated salary of $2,100 per year. The total crew for the plant is two engineers and two oilers which, with the chief engineers, makes five people. The estimate of salaries per year for the entire crew of the plant is estimated at $9,100. Fuel oil for a year is estimated at $11,861. $2,000 per year is allowed for lubricating oil. $2,400 is allowed for cost of maintenance and repairs. $1,100 is allowed for small incidental supplies and expenses.

The total production expense for one year is estimated to be $26,451, which is divided by 2,532,800 kilowatt hours, which is estimated to be the output necessary to supply Martinsville, and witness thereby reaches an average cost per kilowatt hour of .01447 dollars which does not take into account any expenditure on account of fixed cost. By

adding fixed costs an average cost at the switchboard is reached of 1.88136 cents per kilowatt hour. Nothing has been allowed in this estimate for cost of financing or going value. This plant is so constructed as to be able to take care of a peak load of 678 kilowatts.

In witness' opinion a large transmission system such as the Wabash Valley Electric Company can deliver power cheaper than it can be generated in the local plant and the figure of 1.5749 cents per kilowatt hour in exhibit 128 prepared by witness expresses witness' opinion as to the price at which the Wabash Valley Electric Company can supply [fol. 400] current to Martinsville making allowance for operating costs, fixed charges, annual depreciation, and permit a return of 7% on the value of the power system property. By dividing, in exhibit 129 prepared by witness, the operating expenses of the local generating plants of the Wabash Valley Electric Company by the cost of operating those local plants as shown on page 34 of Exhibit 107, witness concludes that these local plants produced current at a cost of 9.58 cents per kilowatt hour for the year 1929, and at a cost of 7.78 cents for the year 1928. During the year 1928 the local plants generated .221% of the total energy output of the Wabash system and in 1929 .146%. In witness' opinion, the local plants are not economically valuable to the Wabash Valley Electric system, and in making his appraisal of the power system of the Wabash Valley the witness has not included the local generating plant equipment but has only included certain property in the local generating plant equipment which would be necessary in a sub-station.

Defendants' Exhibit 130 represents a further study as to the total cost of the electrical energy generated by the plants at Clinton, Sullivan and Martinsville in the year 1929 on the theory that the generating plants were left in the power system property at the appraised value as shown by Spooner and Merrill. In this exhibit witness concludes that the cost of generating a kilowatt hour in these plants during the year 1929 was 44.6 cents per kilowatt hour.

If the Wabash Valley Electric Company has in the past and can now and in the future purchase all of the energy it needs at the rate of one cent per kilowatt hour the local plants have no economic value. Witness has estimated the number of kilowatt hours which the local plants must pro-

duce in order to keep down the peak demand of the Wabash Valley Electric Company in regard to its contracts with the Dresser plant and reaches the conclusion that if this peak load had been purchased from the Dresser plant instead of operating the local generating plants that the Wabash Valley Electric Company would have saved the difference between $82,004.38, which is the estimated oper-
[fol. 401] ating cost based on Spooner and Merrill's appraisal of the local property and the cost of purchasing the current which is estimated to result in a saving of $21,942 a year.

Defendants' Exhibit 131 is an estimate and appraisal of the purely local Martinsville property as of May 1, 1930. The reproduction cost is estimated to be $94,829, which is depreciated to reach a cost of reproduction new, less depreciation, of $81,127. Owing to reduced prices of copper, an estimate of reproduction new less depreciation as of September 1, 1930, is given as $79,730. This figure is practically an adoption of the figure used by the Public Service Commission's engineer. Witness' own judgment as to the cost new less depreciation is $62,952, taking into account wear and tear and depreciation due to age. Witness makes no separate allowance for going value but says he does not ignore it and takes it into account in estimating the item of organization, administration, legal and other costs. Witness allowed $3,200 on page 1 of Exhibit 131 as cash working capital.

Defendants' Exhibit 132 is witness' estimate and appraisal of the power property of the Wabash Valley Electric Company with the exception of the three generating plants at Clinton, Martinsville and Sullivan. The unit costs used herein are essentially the same as the unit costs used by the Public Service Commission in their appraisal and, in witness' opinion, they are correct. Owing to the difference in copper prices, witness has adjusted his appraisal to bring the total figure down to September 1, 1930.

Additions to local generating plants have not been included in witness' appraisal and are deducted from the commission's appraisals. In witness' opinion, the cost of reproduction new less depreciation of the power system property, as of September 1, 1930, is $2,209,662, which includes working capital, supplies and cash.

Defendants' Exhibit 133 details the process by which witness arrived at a rate of 3.1% as a proper rate for annual depreciation of the power system property, and a rate [fol. 402] of 4.1% for the Martinsville local property. Defendants' Exhibits 12, 128, 129, 130, 131, 132 and 133 were admitted and read in evidence. Witness, in estimating the cost of the current delivered at Martinsville per kilowatt hour took the figure on the high side of the substation and divided it into the operating cost thus getting a lower cost per kilowatt hour than if the current on the low side of the transformer had been used. Witness has allowed 2% on his valuation for working men's compensation insurance and taxes. Witness spent about sixty days with the commission engineer during the merger case and discussed his theories with them. About five days of this period was spent in the field inspecting the properties of the Central Indiana Power group of which the Wabash Valley Electric Company is a part. During this time witness covered about forty different communities. Witness did not see but about 200 miles of the transmission lines of the Central Indiana Power group.

Since that time witness has spent two days looking over the property of the Wabash Valley Electric Company but did not go into any of the power plants. On the six months' construction period which witness allowed for the Martinsville local plant he fixed taxes at one-fourth of 1% upon the figure and reached the amount of $202. On page 4 of Exhibit 131 witness includes the cost of securing customers as a part of an allowance of $830. Outside of organization, administration and legal costs, which are estimated at $5,308, nothing additional is allowed by way of going concern value. Witness has assumed that when the plant is completed it will immediately have customers who will take substantially all of its output.

Witness is of the opinion that the local generating plants can be taken out of the general power system at an appraised value of between $400,000 and $500,000. Witness believes that properly accumulated reserves for depreciation should be provided out of which the retirement of such property should be amortized. Witness has provided a straight line depreciation of 3.1% per annum. None of the present turbo-generators in the local plant has been in service for anywhere near the period of twenty-five years.

[fol. 403] Assuming that the payment of one cent per kilowatt hour to the Indiana Electric Corporation would not have to be made until the Wabash Valley Electric Company had been paid by its consumers, witness believes that the Wabash Valley Electric system property, which witness estimates at a valuation of $2,209,000 could be carried along with a cash working capital of $18,915. Witness has included going value as a part of the power system organization costs of $19,900 and of the Martinsville local organization costs of $5,308. Thus going value of the Wabash Valley Electric system including the power system and the Martinsville local system would be included as a part of the amount accruing by virtue of the additions of these two sums amounting to about $26,000.

Plaintiff's Exhibit 24 read and admitted in evidence. (Never expressly admitted.)

LAWRENCE CARTER, witness for defendants, testified:

Witness resides at Indianapolis, Indiana and is a certified public accountant of the state of Indiana. Witness was at one time for two years assistant chief examiner or accountant for the Public Service Commission. Witness has made a study and examination of defendants' Exhibits 107, 111, 112 and 113 and witness has summarized his findings in Defendants' Exhibit 134. Defendants' Exhibit 135 also prepared by witness shows computations based upon the figures in several exhibits which witness examined and also exhibits which have heretofore been put in evidence. This exhibit shows income accounts for the year 1929 under the rates set out in Public Service Commission's order No. 8894 showing the rate of return on the $87,000 valuation found for local property at Martinsville, to which is added $86,338 being 3.01% of the total power system property of the Wabash Valley Electric Company. Depreciation is computed at 4% upon depreciable property valued at $149,-281. The sum of $614.78 is apportioned as the Martinsville share of indirect charges to construction with a credit due power system costs. $400 has been allotted as the amortized share of the rate case expense in accordance with the commission order to be charged as a part of oper-[fol. 404] ating expense. Total operating expenses are

estimated to be $54,979.45. Then 4% for annual depreciation is applied. The fair value of the property used and useful in Martinsville, including the local and allocated portion of the power system, amounts to $173,338, and for the year 1929 the return on that amount is $23,799.44, which is a return of 13.7% upon the rate base. For the rate base, witness has taken the amount fixed by the Public Service Commission as the total value of the Martinsville property, which is $87,000. The power cost has been estimated by multiplying 2,532,798 kilowatt hours by 1.72 cents, which amounts to $43,564.13. The operating expenses and power costs are taken from the audits of the commission. 4% annual depreciation is allowed upon $72,757 as being the valuation of the depreciable property at Martinsville, which is taken from the commission's appraisal. Upon this basis the return upon the $87,000 appraisal fixed by the commission amounts to 19%. By figuring backwards, taking 4% on the same amount of depreciable property and 7% return on $87,000, the company would have had available to buy power at the gateway $54,000.80, which would have permitted it to pay 2.13 cents per kilowatt hour at the gateway, which is forty-one hundredths of a cent per kilowatt hour higher than the rate established by the commission.

Defendants' Exhibit 136 contains adjustments of figures in Exhibit 135. Column A contains items of revenue and expenses for the year 1929 as taken from the commission's audit. After adjustments, total operating revenue is given as $84,750.13. It is a mathematical application of the new rate to the consumption for the year 1929. The actual operating revenue for the year 1929 was $99,550.91 from which is deducted $14,800.78 to adjust the revenue to the new rates. The total operating expense, after certain additional adjustments is $54,979.45. After adjustments, a gross income before depreciation is given of $29,770.68. Exhibit 136 also shows the return upon the various valuations introduced in this case, including that of Spooner and Merrill. After deducting 4% depreciation the amount of $23,799.44 is available for return which, under the Public [fol. 405] Service Commission appraisal, permits a return of 14.1%. In computing operating expenses $400 per year has been allowed for rate case expense. In each instance, in allocating power system property to Martinsville the

percentage of 3.01 has been applied to the valuation computed by the various engineers. Under Spooner and Merrill's appraisal witness finds that $22,328.32 is available for return, which permits a rate return of 9.1%. Similarly, the return upon Husselman's appraisal amounts to 16.8%. Defendants' Exhibit 138 shows the amount available for power costs after allowing expenses, 4% depreciation, and 7% return on the Martinsville local property, in accordance with Public Service Commission order No. 8894 based on 1929 with certain adjustments. Exhibit 137 shows a power cost of $43,564.13 for the year 1929 based on the gateway price of 1.72 cents per kilowatt hour. It is computed that $19,436.95 was available for return and depreciation on the Martinsville local property. On this amount has been computed the rate of return which would occur on the several bases of appraisal introduced in this case. On the Public Service Commission appraisal this amounts to 19.9%. Exhibit 138 indicates that deducting 4% for annual depreciation and allowing 7% return on the cost of reproduction new, less depreciation of the Martinsville local property that there would be available for the purchase of power at the gateway under the appraisal of the commission, 2.14 cents per K. W. H. on a total property valuation of $83,000. Under Husselman's valuation of $79,730, the plaintiff could pay 2.16 cents per K. W. H. at the gateway. Under Spooner and Merrill's appraisal on a valuation of $133,402, the plaintiff could pay 1.95 cents per K. W. H. at the gateway and under Stone and Webster's appraisal of $119,818, the plaintiff could pay 2.00 cents per K. W. H. at the gateway. Defendants' exhibits 134, 135, 136, 137 and 138 were admitted and read in evidence.

Defendants' Exhibit 135 uses 1929 consumption and expense figures and applies them to an inventory of the value of the property as of November 30, 1927. In each of the exhibits the general expenses of this rate case have been eliminated and $400 allowed annually as in accordance with commission's order No. 8894. In preparing the exhibits to [fol. 406] which witness testified, witness assembled and compiled figures and made computations and witness does not vouch for any of the theories upon which the computations are based and the work of witness was purely mechanical.

September 19, 1930.

WILLIAM F. HABENEY, witness for plaintiff, testified:

Witness resides at Indianapolis, Indiana, and has been employed by the Indianapolis Power and Light Company since 1908 with the exception of five years spent with the Public Service Commission of Indiana. Witness is an engineer and has charge of the installation and connection of meters for the Indianapolis Power and Light Company. A crew of one second-class lineman, meter installer and helper is used with a truck to install meters. On a ten hour day basis one hour of which is taken up by getting the car out of the garage, getting material, and writing up installation of meters, such a crew will, on an average, install about eleven meter services.

Plaintiff's Exhibits 26 and 27 were admitted and read in evidence.

Abstract of Plaintiff's Exhibits

EXHIBIT 1

Map of Transmission Lines

(Here follows Plaintiff's Exhibit 1, side folio 407)

September 19, 1930.

WILLIAM F. HABENEY, witness for plaintiff, testified:

Witness resides at Indianapolis, Indiana, and has been employed by the Indianapolis Power and Light Company since 1908 with the exception of five years spent with the Public Service Commission of Indiana. Witness is an engineer and has charge of the installation and connection of meters for the Indianapolis Power and Light Company. A crew of one second-class lineman, meter installer and helper is used with a truck to install meters. On a ten hour day basis one hour of which is taken up by getting the car out of the garage, getting material, and writing up installation of meters, such a crew will, on an average, install about eleven meter services.

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Abstract of Plaintiff's Exhibits

EXHIBIT 1

Map of Transmission Lines

(Here follows Plaintiff's Exhibit 1, side folio 407)

FOLD-OUT IS TOO LARGE TO BE FILMED

[fol. 408] EXHIBITS 2-A TO 2-F

Itemized inventories and appraisals by Spooner and Merrill of entire system property of Wabash Valley Electric Company—consists of 1,423 sheets of itemized appraisals.

EXHIBIT 2-G

Summary of Appraisal by Spooner and Merrill of System Properties. Cost of Reproduction New Using May 1, 1929, Prices of Electric Properties of Wabash Valley Electric Company Based on September 1, 1927, Inventory with Actual Construction Additions and Betterments to May 1, 1930. Consists of 65 Sheets of Tabulations

	Cost of reproduction	
	New	Less depreciation
Appraised property less retirements, plus book additions to May 1, 1930	$4,928,134	$4,454,061
Not used by electric utility	133,775	102,309
Electric utility property	$4,794,359	$4,351,752
Material and supplies		140,000
Working cash		163,000
Going concern value		719,154
Cost of financing		182,185
Total value less depreciation		$5,556,091

EXHIBIT 2-H

Spooner and Merrill Martinsville Local. Cost of Reproduction New of May 1, 1930. Inventory Based on May 1, 1929. Prices with Certain Additions for Allocated Equipment

	Cost of reproduction	
	New	Less depreciation
Land, structures and equipment at Martinsville plant for local Martinsville use only	$12,475	$10,936
Distribution system, including structural overheads	95,865	85,193
General equipment allocated to local Martinsville Electric	5,412	4,530
Total	$113,752	$100,659
Materials and supplies		10,000
Working cash		3,358
Going concern value		17,063
Cost of financing		4,322
Total value less depreciation		$135,402

[fol. 409] EXHIBIT 2-I

Allocation to use of Wabash Valley Electric Company properties to separate power system from local distribution systems. Cost of reproduction of electric properties new less depreciation adjusted to May 1, 1930, including overhead

	Power	Local
Generating plants	$424,282	$33,850
Substations	737,386	116,358
Transmission system	1,409,227	.....
Carrier current equipment	50,169	.....
Low voltage substation	37,674	63,191

Transmission system low voltage	178,499	.....
Distribution system	.....	1,149,839
Consumer installations	.....	68,902
General office	.....	3,578
Stores department	.....	4,413
General equipment	.....	74,384
Total	$2,837,237	$1,514,515
Power system		$2,837,237
Local system		1,514,515
		$4,351,752
Total cost of power system depreciated, including going value, etc. (See Exhibit 26)		$3,637,650

EXHIBITS 3-A TO 3-E

Photographs of poles and equipment.

EXHIBIT 4-A

Net increase to Wabash Valley Electric Company, electric properties from September 1, 1927, to February 28, 1929	$241,612.76

EXHIBIT 4-B

Net increase to Wabash Valley Electric Company electric properties from February 28, 1929, to April 30, 1930	576,375.33
Total	$817,988.09
Net additions to power system September 1, 1927, to April 30, 1930	$539,065.00

[fol. 410] EXHIBIT 5

Estimated cost of generating local power at Martinsville by Sargent and Lundy (F. W. Martin)

Scheme 1:	
Present property retained as depreciated	$102,488
Additions new	52,443
With additions for overhead, financing, going value, etc.	51,779
Total depreciated	$206,710
Scheme 2:	
Present property retained as depreciated	$83,381
Additions	119,891
With additions for overhead, financing, going value, etc.	48,072
Total depreciated	$251,344
Scheme 3:	
Construction cost of new plant	$280,420
Overhead and intangibles	49,802
Total	$330,222

Cost per KWH	Scheme 1	Scheme 2	Scheme 3
7% return	$.03266	$.03121	$.03052
8% return	.03347	.03221	.03181
Change per unit cost per 10c change in price of coal	.0035	.0030	.0020

[fol. 411] EXHIBIT 6

Spooner & Merrill estimate for local plant at Martinsville, Prepared by Charles A. Hamilton

Plan 1:	
Old equipment retained as depreciated	$76,928
New equipment	66,816
With additions for overhead, financing, going value, etc.	64,987
Total cost depreciated	$208,731
Plan 2:	
Old equipment retained as depreciated	$73,821
New equipment	118,530
With additions for overhead, financing, going value, etc.	71,009
Total cost depreciated	$263,360
Plan 3:	
Cost of new plant	$327,171

Cost of generating KWH	Plan 1	Plan 2	Plan 3
7% return	$.033255	$.031590	$.028958
8% return	.034078	.032629	.030249
Change for each 10c change in coal price	.003540	.002896	.001822

[fol. 412] EXHIBIT 7

Stone and Webster appraisal of electric properties of Wabash Valley Electric Company using May 1, 1929, prices applied to September 1, 1927, inventory. (See Exhibit 2-G.)

	Cost of reproduction	
	New	Less depreciation
Cost of reproduction	$3,168,186	$3,061,555
Addition to May 1, 1930	1,151,952	1,151,952
General construction costs	505,000	505,000
Organization	100,000	100,000
Working capital	200,000	200,000
Cost of financing	270,000	270,000
Going value	540,000	540,000
Total	$5,935,138	$5,828,507

Appraisal of various divisions of Wabash Valley Electric Company properties less observed depreciation using May 1, 1929, prices, applied to September 1, 1927, inventory

Generating plants	$437,932
Substations	545,275
Transmission system high voltage	994,893
Telephone, telegraph, wireless	35,227
Substations—low voltage	54,187
Transmission system low voltage	114,349
Distribution system	788,988
Consumer installations	37,819
General office	3,900
Stores department	6,005
General equipment	42,980
Total	$3,061,555

EXHIBIT 8

Stone and Webster appraisal of Martinsville local distribution system as of May 1, 1930, at May 1, 1929, prices

	Cost of reproduction	
	New	Less depreciation
Structural cost	$85,953	$84,418
General construction costs	12,700	12,700
Organization	2,000	2,000
Working capital	4,100	4,100
Cost of financing	5,600	5,600
Going value	11,000	11,000
Total	$121,353	$119,818

[fol. 413]

EXHIBIT 9

Stone and Webster estimate for cost of Generating Local Power at Martinsville

Plan 1:	
Present property retained as depreciated	$130,000
New equipment	82,000
With addition for going value	24,000
Total cost depreciated	$236,000
Plan 2:	
Present property retained as depreciated	$107,000
New equipment	173,000
With addition for going value	24,000
Total cost depreciated	$304,000
Plan 3:	
Cost of new plant, including going value	$385,000

Cost of generating KWH, including a return of 8%	Plan 1	Plan 2	Plan 3
13% investment charge	$.03357	$.03417	$.03562
14% investment charge	.03447	.03539	.03712
Change in unit cost per 10c change in price of coal	.00296	.00252	.00205

EXHIBIT 10

Rates ordered by public service commission of Indiana for Martinsville applied to all Class A* and Class B* towns of Wabash Valley Electric Company showing gross reduction in revenue based on billings from May 31, 1929, to May 31, 1930

* Regulation of Public Service Commission for annual report.
Class A—Town over 10,000 population;
Class B—Town between 3,000 and 10,000 population.

	Gross total reduction	
	Optional	Non-optional
Martinsville	$16,278.72	$15,901.70
Clinton	12,813.43	9,128.27
Greencastle	18,873.82	17,681.60
Jasonville	8,105.34	6,865.89
Sullivan	16,026.35	14,481.29
Total	$72,099.66	$64,058.75

[fol. 414] EXHIBIT 11

A detailed explanation of undistributed unit cost. Read the exhibit for the method used.

EXHIBITS 12-A TO 12-B

Order and supplemental order of Public Service Commission of Indiana dated January 26, 1929, and February 15, 1929, respectively, copies of which are attached to the Bill of Complaint as Exhibits A and B respectively.

EXHIBIT 13

Comparison of wire prices May 1, 1929, to September, 1930

Decrease entire system	$130,733
Decrease Martinsville local	6,575

EXHIBIT 14

Copper wire base as published in Engineering and Mining Manual

January, 1929	18.62 cents per pound
March, 1929	23.82 cents per pound
May, 1929, to March, 1930	19.875 cents per pound
September, 1930	12.75 cents per pound

EXHIBIT 15

Energy received from Northern Indiana Power Company at Lafayette, and transmitted over Lafayette-Clinton Transmission Line during year ended May 31, 1930.

Total transmitted	1,585,400 KWH

EXHIBIT 16

Energy purchased and generated by Wabash Valley Electric Company during year ended December 31, 1928

Purchased:	
Illinois Power & Light Company	4,400 KWH
Interstate Public Service Company	273,300 KWH
Terre Haute, Indianapolis & Eastern Traction Company	35,401 KWH
Indiana Electric Corporation	79,962,702 KWH
Total purchased	80,275,803 KWH
Generated	177,680 KWH
Grand total	80,453,483 KWH

[fol. 415] EXHIBIT 17

Energy Purchased and Generated by Wabash Valley Electric Company During Year Ended May 31, 1930

Purchased:	
Interstate Public Service Company	396,560 KWH
Terre Haute, Indianapolis & Eastern Traction Company	42,897 KWH
Indiana Electric Corporation	84,778,437 KWH
Total purchased	85,217,894 KWH
Generated	77,945 KWH
Grand total	85,295,839 KWH

EXHIBIT 18

Record of Dividends on Common Stock of Wabash Valley Electric Company from June 30, 1923, to June 30, 1930

	Par value outstanding	Rate	Amount paid
December 31, 1923	$500,000	8%	$40,000.00
March 31, 1924	500,000	4%	20,000.00
June 30, 1924	500,000	8%	40,000.00
June 30, 1925	500,000	4%	20,000.00
October 31, 1925	500,000	4%	20,000.00
October 31, 1925	620,000	...	.....
December 31, 1926	620,000	...	.....
December 31, 1927	620,000	6%	37,200.00
December 31, 1928	620,000	...	.....
December 31, 1929	620,000	...	.....
June 30, 1930	620,000	...	.....
Average for period	$580,000	4.36%	$25,314.28

[fol. 416]

EXHIBIT 19

Comparison of Construction Expenditures of Wabash Valley Electric Company Subsequent to June 26, 1923, and Proceeds from Securities Authorized for Construction Expenditures to April 30, 1930

Plant property balance per books:		
April 30, 1930—(without allowance for going value, working capital, materials and supplies)		$5,235,900.94
Electric utility	$4,940,686.94	
Gas and water utility	295,214.00	
	$5,235,900.94	
Less: Property set up on Public Service Commission order No. 7018, dated June 26, 1923		1,979,976.72
		$3,255,924.22
Less: Charges not fundable (organization)		5,136.90
Total fundable construction expenditures		$3,250,787.32
Realization on securities issued and sold subsequent to Public Service Commission order No. 7018, dated June 26, 1923		2,156,320.00
Remainder—Construction expenditures subsequent to Public Service Commission order No. 7018 for which securities have been partially authorized (see below)		$1,094,467.32

Estimated Realization on Unsold Securities Authorized by Public Service Commission

	Par	Authorized at	Realization	
Bonds	$242,000	94	$227,480	
Preferred Stock	245,600	90 & 94	226,864	
Common Stock	401,600	90 & 94	367,264	
Total	$889,200			821,608.00
Excess of construction expenditures to April 30, 1930, over realization from securities if all authorized securities were sold at authorized prices				$272,859.32

[fol. 417]

Summary of Securities of Wabash Valley Electric Company Issued Under Authority of Public Service Commission of Indiana as Shown in Exhibits 19 and 19-A to 19-L, Inclusive

Exhibit number	P. S. C. I. order	Purpose of issue	Amount
19-A	7018	Retiring, refunding, acquisition of property, construction and working capital	$1,811,700
19-B	8955	Construction	729,200
19-C	7286	Construction	373,100
19-D	8505	Construction	523,000
19-E	8142	Acquisition of property	160,000
19-F	8071	Construction	266,000
19-G	7893	Construction	353,000
19-H	7673	Construction	573,000
19-I, 19-J	7496	Construction	194,000
19-K	7422	Construction	88,100
19-L	7441	Acquisition of property	17,000
Total authorized securities			$5,088,100

[fol. 418] EXHIBITS 19-A TO 19-L

Certified copies of orders of the Public Service Commission of Indiana authorizing the issuance of securities by the Wabash Valley Electric Company.

EXHIBIT 19-A

Order No. 7018—Approved June 26, 1923

The order sets forth a copy of the petition which shows that Wabash Valley Electric Company serves Clinton, Dana, Blanford and St. Bernice in Vermillion county, and the towns of Lyford, Rosedale and Montezuma in Parke county, all of which are interconnected by electric transmission lines, and is also the owner of an electric transmission line connecting Clinton in Vermillion county with the city of Greencastle in Putnam county, and also manufactures and sells electricity to towns and cities in Sullivan, Greene and Clay counties in Indiana, all of which are interconnected by electric transmission lines, and manufactures at its steam plants located at Clinton and Sullivan substantially all of the electricity distributed by it and by the Putnam Electric Company and Cayuga Electric Company.

Putnam Electric Company manufactures and sells electricity at Greencastle and Cloverdale in Putnam county, said communities being interconnected by electric transmission lines.

Cayuga Electric Company sells electricity in Cayuga and Newport in Vermillion county, which communities are interconnected by electric transmission lines.

Martinsville Gas and Electric Company sells electricity and gas in Martinsville in Morgan county, Indiana.

Spencer Light, Power, Heat & Water Company sells and distributes electricity and water in Spencer, Owen county, Indiana.

Gosport Electric Company sells and distributes electricity in Gosport, Owen county, Indiana.

Morgan County Light and Power Company transmits and sells electricity in Morgantown, Morgan county, Indiana.

[fol. 419] Roachdale Electric Company serves cities and towns in Putnam, Hendricks and Montgomery counties, Indiana, with electrical energy, and said towns are interconnected by transmission lines.

Wabash Valley Electric Company desires to purchase the electrical properties of all of the above named companies and to issue its securities for the purpose of refunding certain of its outstanding obligations, and also for making said purchases.

The aggregate fair value of all the properties, when the purchases are made and the securities issued, will be $2,073,000. Wabash Valley Electric Company will refund all of its securities, except $250,000 par value of common stock, and the aggregate amount of securities outstanding will then be $1,811,700, and will consist of the following:

Common stock	$500,000 par value
Seven per cent preferred stock	306,300 par value
Six per cent bonds	1,005,400 par value
Total	$1,811,700

It is found that the aggregate value of the properties owned and to be acquired is in excess of the aggregate par value of the securities to be authorized.

It is ordered that the Wabash Valley Electric Company be authorized to issue and dispose of the following securities for the purposes aforesaid:

$1,005,400 principal amount 6 per cent bonds.
306,300 par amount 6 per cent preferred stock.
250,000 par amount common stock.

The securities authorized to be issued to be sold or exchanged and the property and cash received therefor to be used in purchasing the properties and refunding obligations as above set forth.

[fol. 420] EXHIBIT 19-B

Order No. 8955—Approved June 7, 1927

Shows additions, improvements and extensions to its power plant, transmission line, substations and distribution systems, against which no securities have heretofore been authorized, the total cost of which will be $685,434.

It is therefore ordered that Wabash Valley Electric Company be authorized and it is hereby authorized to issue and sell (at not less than 94 per cent of the par value thereof), $438,000 First Mortgage 6 Per Cent Gold Bonds; $145,600 7 Per Cent Preferred Stock and $145,600 Common Capital Stock.

EXHIBIT 19-C

Order No. 7286—Approved August 31, 1923

Shows permanent extensions and additions to its property and plant properly chargeable to capital account in the amount of $87,361.77 made between May 1, 1923, and June 30, 1923.

It contemplates making additions, extensions and improvements to its plant and system to be completed by December 31, 1923, in the amount of $249,798.24.

It is therefore ordered that Wabash Valley Electric Company be and it is authorized to issue and sell (at not less than 90 per cent of par and accrued interest), $252,400 of its 6 Per Cent, Series A, First Mortgage 25 Year Bonds dated May 1, 1923, and it is also authorized to issue and sell at not less than 90 per cent of par $120,700 of its 7 Per Cent Preferred Stock.

[fol. 421] EXHIBIT 19-D

Order No. 8505—Approved May 21, 1926

Shows permanent extensions and additions to its property and plants properly chargeable to capital account

which have been made and are to be constructed in the near future; the estimated total cost of which is $471,054.46. An exhibit filed with the amended petition, which is not a part of the certified order, gives a summary of the actual expenditures from November 30, 1924, to March 31, 1926, and also itemizes the contemplated expenditures.

It is therefore ordered that the Wabash Valley Electric Company be, and it is, authorized to issue and sell (at not less than 90 per cent of its principal amount par value), $323,000 6 Per Cent First Mortgage Gold Bonds; $100,000 par value of 7 Per Cent Preferred Stock and $100,000 par value of Common Capital Stock.

EXHIBIT 19-E

Order No. 8142—Approved August 23, 1925

Authorizes Wabash Valley Electric Company to purchase from Indiana Power Company an electric transmission line extending from Worthington to Martinsville, Indiana, a distance of 43.57 miles, and equipment accessory thereto, for the sum of $144,187.

It is therefore ordered that the Wabash Valley Electric Company be, and it is, authorized to issue and dispose of (at not less than 90 Per Cent of the principal amount or par value thereof), $96,000 principal amount 6 Per Cent Bonds; $32,000 par value 7 Per Cent Preferred Stock and $32,000 par value Common Stock.

[fol. 422] EXHIBIT 19-F

Order No. 8071—Approved June 19, 1925

Shows permanent extensions and additions to its property and plant properly chargeable to capital account, together with contemplated additions, extensions and improvements, totaling in all $238,870.50.

It is therefore ordered that the Wabash Valley Electric Company be, and it is, authorized to issue and dispose of (at not less than 90 per cent of the principal amount or par value), $160,000 principal amount of 6 Per Cent Bonds; $53,000 par value 7 Per Cent Preferred Stock and $53,000 par value Common Stock.

Exhibit 19-G

Order No. 7893—Approved February 14, 1925

Shows permanent extensions and additions to its property and plant properly chargeable to capital account in the amount of $269,179.21, made between April 30 and November 30, 1924. It contemplates making additions, extensions and improvements to its plant and system in the amount of $454,178.02, from which are deducted contemplated retirements amounting to $6,722.91, which gives a total of $447,455.11. This added to $269,179.21, totals $716,634.32, from which are deducted expenditures contemplated in order No. 7673 amounting to $399,020.57, leaving a total of unfunded expenditures as contemplated in the amount of $317,613.75.

It is therefore ordered that Wabash Valley Electric Company be and it is authorized to issue and dispose of (at not less than 90 per cent of the principal amount or par value), $211,000 principal amount of its 6 Per Cent Bonds; $71,000 par value of its 7 Per Cent Preferred Stock and $71,000 par value of its Common Stock.

[fol. 423]

Exhibit 19-H

Order No. 7673—Approved August 18, 1924

Shows permanent extensions and additions to its property and plant properly chargeable to capital account in the sum of $460,454.89, made between September 30, 1923, and April 30, 1924. It contemplates making additions, extensions and improvements to its plant and system in the amount of $399,020.57 from May 1, 1924, to December 31, 1924, all of which totals $859,475.46, from which are deducted contemplated expenditures, order No. 7422, in the amount of $166,724.83, and contemplated expenditures, order No. 7496, in the amount of $175,135.07, and contributions for extensions, $1,517.61, all of which totals $343,377.51, which deducted from the sum of $859,475.46, leaves a total of unfunded expenditures in the amount of $516,097.95.

It is therefore ordered that Wabash Valley Electric Company be and it is authorized to issue and dispose of (at not less than 90 per cent of par or face amount)

$387,000 of its 6 Per Cent Gold Bonds according to the provisions of its trust deed to Union Trust Company of Chicago, Illinois, dated May 1, 1923; $100,500 par amount of its 7 Per Cent Preferred Stock and $85,500 par value of its Common Stock.

EXHIBIT 19-J

Order No. 7496—Approved March 21, 1924

Shows contemplated additions, extensions and improvements to its plant and system to be completed subsequent to January 1, 1924, in the amount of $175,135.07.

Balance sheet as of December 31, 1923, shows total assets and other debits to be $3,117,777.45.

It is, therefore, ordered that the Wabash Valley Electric Company be, and it is, authorized to issue and sell (at not less than ninety per cent (90%) of par) $110,000.00 of six per cent (6%) Gold Bonds dated May 1, 1923, $40,000.00 of its 7% Preferred Stock, and $25,000.00 of Common Stock.

[fol. 424] EXHIBIT 19-I

Modified Order No. 7496—Approved May 2, 1924

Shows that Order No. 7496, approved March 21, 1924, Exhibit 19-J herein, should be modified.

It is therefore ordered that Wabash Valley Electric Company be, and it is, authorized to issue and sell (at not less than ninety per cent (90%) of par) $120,000 of its 6% Gold Bonds dated May 1, 1923; $44,000.00 of its 7% Preferred Stock and $30,000.00 of its Common Stock.

EXHIBIT 19-K

Order No. 7422—Approved December 21, 1923

Shows permanent extensions and additions to its property and plant properly chargeable to capital account in the amount of $162,462.27 made between July 1, 1923, and September 30, 1923.

It contemplates making additions, extensions and improvements to its plant and system between October 1, 1923, and March 31, 1924, in the amount of $166,724.83.

The total expenditures as contemplated amount to $329,-187.10 from which is deducted expenditures estimated in

Commission order No. 7286 in the amount of $249,798.24, less certain contributions for extensions in the amount of $82.30, which leaves a total of $79,306.56.

It is therefore ordered that Wabash Valley Electric Company be, and it is, authorized to issue and sell (at not less than ninety per cent (90%) of par), $28,500.00 of Preferred Stock and $59,600.00 of Series A, 6% Twenty-five Year First Mortgage Bonds, dated May 1, 1923.

[fol. 425] EXHIBIT 19-L

Order No. 7441—Approved January 4, 1924

Shows authorized purchase by Wabash Valley Electric Company of the electric distribution and transmission system of the town of Kingman for the amount of $15,500.00.

It is therefore ordered that Wabash Valley Electric Company be, and it is, authorized to issue and sell (at not less than 90 per cent of par or face amount), $4,500.00 par value Common Stock and $12,500.00 face amount of Series A, First Mortgage Bonds, dated May 1, 1923, maturing in twenty-five years with interest at six per cent (6%).

EXHIBIT 20

Summary of Gross Income and Percentage Ratio Thereof to Plant Property, Franchises and Working Capital of Wabash Valley Electric Company for Period from May 31, 1923, to June 30, 1930

Gross Income Before Provision for Depreciation

Month of June, 1923	$21,011.85*
Years ended June 30, 1924	271,333.98
1925	306,747.80
Six months ended December 31, 1925	157,169.49*
Years ended December 31, 1926	343,499.85
1927	425,237.37
1928	440,534.42
1929	450,453.17
Six months ended June 30, 1930	163,831.11*
Annual average	$364,209.75

* Amounts of gross income for periods of less than one year have been adjusted to an annual basis in computing percentage ratios.

Plant Property and Franchises of Wabash Valley Electric Company After Deducting Retirements, but Before Deducting Depreciation

	Book value	Estimated working capital requirements	Total
June 30, 1923	$2,131,905.38	$121,321.00	$2,253,226.38
June 30, 1924	2,904,922.71	165,286.00	3,070,208.71
June 30, 1925	3,753,813.25	213,615.00	3,967,428.25
Dec. 31, 1925	3,918,294.27	222,947.00	4,141,241.27

	Book value	Estimated working capital requirements	Total
Dec. 31, 1926	4,079,151.66	232,128.00	4,311,279.66
Dec. 31, 1927	4,232,031.75	240,824.00	4,472,855.75
Dec. 31, 1928	4,498,551.87	255,974.00	4,754,525.87
Dec. 31, 1929	5,044,414.71	287,032.00	5,331,446.71
June 30, 1930	5,324,903.71	303,000.00	5,627,903.71
Average			$4,373,653.80

Percentage average ratio of gross income before provision for depreciation to plant property, franchises and working capital 8.33%

[fol. 426] EXHIBIT 21

Wabash Valley Electric Company—Electric Utility—Operating Balance Entire Company Year Ended December 31, 1928—(Consisting of 11 Pages)

Less:

(a) Reduction due to application of rates in Order No. 8894, to consumption by customers in Martinsville, and

(b) The estimated annual reduction in Clinton and Greencastle electric utility revenues as a result of rates filed with Public Service Commission December 13, 1928.

Balance available for return	$278,834.21
Deduction for estimated annual reduction in gross revenue from application of rates in Public Service Commission Order No. 8894	46,567.70
Balance	$232,266.51
Rate of return of $232,266.51 on $5,026,437.59	4.62%

Page 2

Martinsville Electric Utility Operating Balance for Year Ending December 31, 1928, Based on K. W. H. Cost at Gateway of $.024996 (See P. 4—Exhibit 21)—Local Revenue, Operating Expenses and Taxes for Year 1928—Spooner & Merrill's Appraised Value of Martinsville Local Electric Utility Property as of September 1, 1927, Plus Book Cost of Additions and Betterments to December 31, 1928

Gross revenue (per books)		$95,105.47
Operating expenses, taxes and depreciation:		
Power costs—2,511,125 K.W.H. at $.024996 (See p. 4)	$62,768.08	
Other expenses and taxes	29,015.81*	
Total operating expenses and taxes	$91,783.89	
Depreciation	4,896.90	
		96,680.79
Deficit		$1,575.32†
Deduction by application of Public Service Commission Order No. 8894 to energy consumption in year ended December 31, 1928		14,566.33†
Total deficit after application of rates in Public Service Commission Order No. 8894		$16,141.65†

[† Red in copy.]

* Includes item of $5,180.65 annual amortization charge for this rate case expense.

[fol. 427] Page 3

Martinsville Local Electric Utility Property Valuation per Spooner & Merrill's Appraisal of September 1, 1927, Plus Book Cost of Net Additions and Betterments to December 31, 1928, Plus Materials and Supplies, Working Cash, Cost of Financing and Going Value

	Cost of reproduction New	Depreciated
Total appraised property, less land	$97,963.00	$84,399.00
Net additions and betterments 9-1-27 to 12-31-28.	24,459.38	24,459.38
Total physical property, less land	$122,422.38	$108,858.38
Land	388.00	388.00
Total physical property, plus land	$122,810.38	$109,246.38
Materials and supplies		5,318.00
Working cash		3,623.00
Cost of financing		4,912.00
Going value, 15% of $122,810.38		18,421.00
Total value Martinsville local property		$141,520.38
Return and depreciation on above:		
Depreciation 4% of $122,422.38		$4,896.90
Return 8% of $141,520.38		11,321.63

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Energy Cost at Gateway of Cities and Towns Served from the Power System Based on Power System Operating Expenses and Taxes for the Year Ended December 31, 1928, and Return and Depreciation Based on Spooner & Merrill's Appraised Value of Power System Property as of September 1, 1927, Plus Book Cost of Net Additions and Betterments to December 31, 1928

Power System Operating Expenses and Taxes:

Power purchased and generated (80,453,483 KWH at $.0102305)	$823,082.80
Transmission	22,511.33
Transformation	27,213.16
General expense, taxes, etc	69,689.50
Total operating expenses and taxes	$942,496.79
Less: Gross revenue derived from the transmission and sale of energy to the Attica Electric Company and Northern Indiana Power Company	471,090.25
Net operating expenses and taxes	$471,406.54
Depreciation (4% of $2,785,839.16)	111,433.57
Return (8% of $3,367,974.16)	269,437.93
Net power system operating expenses, taxes, depreciation and return	$852,278.04
Unit cost per KWH delivered at gateway of Wabash Valley Electric Company cities and towns served from power system equals 34,096,423 KWH	$.024996
852,278.04	

[fol. 428] Page 5

Power System Property—Valuation per Spooner & Merrill's Appraisal of September 1, 1927, Plus Book Cost of Net Additions and Betterments to December 31, 1928, Plus Materials and Supplies, Working Cash, Cost of Financing and Going Value

	Cost of reproduction	
	New	Less depreciation
Total appraised physical property	$2,684,365.00	$2,485,123.00
Net additions and betterments 9-1-27 to 12-31-28	94,499.16	94,499.16
Total physical property, less land	$2,778,864.16	$2,579,622.16
Value of power system land	6,975.00	6,975.00
	$2,785,839.16	$2,586,597.16
Materials and supplies	.....	120,980.00
Fuel	.....	5,000.00
Working cash	.....	117,807.00
Cost of financing	.....	111,693.00
Going value (15% of $2,792,814.16)	.....	418,922.00
Total value of power system property	$2,785,839.16	$3,360,999.16

Return and depreciation based on above:

Depreciation 4% of $2,778,864.16	111,433.57
Return 8% of $3,360,999.16	269,437.93

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Operating Balance—Electric Utility as a Whole Based on Revenues, Operating Expenses and Taxes per Books for Year Ended December 31, 1928, and Spooner & Merrill's Appraisal of September 1, 1927, Plus Book Cost of Net Additions and Betterments to December 31, 1928

Gross revenue (exclusive of revenue from sale of electric energy to the Attica Electric Company and Northern Indiana Power Company. See contra deduction below)		$1,220,064.59
Operating expenses, taxes and depreciation:		
Power department expense—gross	$878,455.81	
Less: Gross revenue derived from sale of electrical energy to Attica Electric Company and Northern Indiana Power Company	471,090.25	
Net power department expense	$407,365.56	
Power department taxes	64,040.98	
Total power department expenses and taxes	$471,406.54	
Local department expenses and taxes	301,600.10	
Depreciation (4% of $4,205,593.59)	168,223.74	
Total operating expenses, taxes and depreciation		941,230.38
Balance available for return		$278,834.21

[fol. 429] Spooner & Merrill's Appraisal of September 1, 1927, Plus Additions and Betterments to December 31, 1928

	Cost of reproduction	
	New	Less depreciation
Physical property, less land	$4,205,593.59	$3,870,184.59
Land	10,673.00	10,673.00
Physical property, plus land	$4,216,266.59	$3,880,857.59
Materials and supplies	.....	184,000.00
Fuel	.....	5,000.00
Working cash	.....	155,500.00
Cost of financing	.....	168,640.00
Going concern value (15% of $4,216,266.59)	.....	632,440.00
Total value of electric utility property	$4,216,266.59	$5,026,437.59

Return:

Balance of $278,834.21 is equivalent to a return on $5,026,437.59 of ... 5.54%

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Energy Statement for Power System and Martinsville Local Year Ended December 31, 1928

Power system:

Energy delivered to gateway of Wabash Valley Electric Company cities and towns served directly from power system including Martinsville (on low side of transformer)	34,096,423 KWH (1)
Corrected for power loss—Average power system loss 10.7 per cent:	
$\frac{34,096,423}{89,223}$ KWH per cent efficiency x 100 equals	38,214,536 KWH (2)

Northern Indiana Power Company and Attica Electric Company:

Energy delivered to Northern Indiana Power Company at Lafayette and Attica Electric Company at Attica and Newton	37,687,220 KWH (3)
Corrected for power loss—Average power system loss 10.7 per cent:	
$\frac{37,687,220}{89,223}$ KWH per cent efficiency x 100 equals	42,238,947 KWH (4)

Martinsville local:

Energy delivered to Martinsville low side of sub-station transformer	2,511,125 KWH (5)
Energy delivered at customers' meters—Martinsville	2,148,179 KWH
Martinsville local distribution efficiency	85.55 per cent

[fol. 430] Page 8

Apportionment of Materials and Supplies and Working Cash Between Local and Power System Departments, December 31, 1928

Materials and supplies—total $184,000.00

Apportionment on basis of property value:

	Property value	Per cent	Apportionment of materials and supplies
Power system	$2,785,839.00	65.75	$120,980.00
Local—other than Martinsville local	1,307,617.00	31.36	57,702.00
Martinsville local	122,810.00	2.89	5,318.00
Total	$4,216,266.00	100.00	$184,000.00

Fuel—total requirement—all chargeable to power system	5,000.00
Working cash requirement (one and one-half month expenses and taxes)	155,500.00

Apportionment on basis of operating expenses and taxes:

	Operating expenses	Per cent	Apportionment of working cash
Power system operating expense and taxes	$942,496.79	75.76	$117,807.00
Local expenses and taxes other than Martinsville	272,584.29	21.91	34,070.00
Martinsville local expenses and taxes	29,015.81	2.33	3,623.00
Total	$1,244,096.89	100.00	$155,500.00

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Materials and Supplies

Total for year 1928	$2,206,353.91
Monthly average	183,862.83
Used	184,000.00

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Net expenditures for additions and betterments —September 1, 1927, to December 31, 1928— Martinsville local property	$24,459.38

Page 11

Net expenditures for additions, improvements and betterments to entire property from September 1, 1927, to December 31, 1928	$313,638.59

[fol. 431] EXHIBIT 22

Page 1

Operating Balance Entire Company Year Ended May 31, 1930, Giving Effect to Application of Rates Ordered by Public Service Commission Order No. 8894 to Consumption by Customers in Martinsville, Clinton, Greencastle, Jasonville and Sullivan

Gross revenue		$1,741,308.40
Operating expenses, taxes and depreciation:		
Power department expenses and taxes	$1,018,710.58	
Local electric utility expenses	$245,221.59	
Local electric utility taxes	39,943.55	
Total local expenses and taxes	$285,165.14	
Depreciation (4% of $4,783,971)	191,358.84	
	476,523.98	
		1,495,234.56
		246,073.84
Less: Deduction by application of Public Service Commission of Indiana Order No. 8894		64,058.75
Balance for return		$182,015.09
Rate of return on valuation of $5,556,091.00 equals		3.28%

1-A

Giving effect to a deduction in Martinsville local revenue from application of rates in Public Service Commission Order No. 8894, estimated to be $15,901.70, results in a deficit of..... $10,621.89*

[*Red in copy.]

1-B

Martinsville Operating Balance Year Ended May 31, 1930, (Based on KWH Cost at Gateway of $.024163) Local Revenue, Operating Expenses, Depreciation and Taxes for the Year Ended May 31, 1930, and Spooner & Merrill's Appraised Value of the Martinsville Local Electric Utility Property as of April 30, 1930

Gross revenue:		
Residence service		$32,349.60
Commercial service		30,746.85
Commercial power		34,389.38
Miscellaneous		284.59
Total revenue		$97,770.42
Operating expenses, taxes and depreication:		
Power cost 2,528,511 KWH at $.024163	$61,096.41	
Local expenses and taxes	26,860.16*	
* Includes item of $6,235.98 annual amortization charge for this rate case expense.		
Depreciation	4,534.04	
Total		92,490.61
Balance for return		$5,279.81
Rate of return on property value of $135,402.00		3.90%

[fol. 432]

Page 2-4

Martinsville—Detail of Operating Expenses and Taxes Year Ended May 31, 1930

Operating expenses and taxes:	
Power cost (See summary sheet)	$61,096.41
Distribution	5,607.82
Utilization	1,499.58
Commercial	2,255.72
Uncollectible accounts reserve charge	378.06
New business	2,590.39
General and miscellaneous	16,668.86
Indirect charges to construction (Cr.)	4,920.25*
Taxes	2,579.98
Total operating expenses and taxes	$87,956.57
Depreciation	4,534.04
Total operating expenses, taxes and depreciation	$92,490.61

[* Red in copy.]

Page 5

Martinsville Local Electric Utility Property Valuation Spooner & Merrill's Appraisal May 1, 1930, for Distribution System. Other Values Spooner & Merrill's September 1, 1927, Appraisal, Plus Gross Additions and Betterments April 30, 1930, at Book Cost Less Retirements for Same Period at Appraised Value

	Cost of reproduction	
	New	Less depreciation
Equipment installed in power plant for local use only—less land	$12,099.00	$10,560.00
Distribution system	95,865.00	85,193.00
General equipment	5,412.00	4,530.00
Total	$113,376.00	$100,283.00
Plus land	376.00	376.00
Total electric utility	$113,752.00	$100,659.00
Materials and supplies		10,000.00
Working cash		3,358.00
Going concern value (15% of $113,752.00)		17,063.00
Cost of financing		4,322.00
Total value electric utility property		$135,402.00
Depreciation 4% of $113,376.00 equals		$4,535.04
Return 8% of $135,402.00 equals		10,832.16

[fol. 433] Pages 6, 7, 8

Energy Cost at Gateway of Cities and Towns Served from the Power System Based on Power System Operating Expenses and Taxes for the Year Ended May 31, 1930, and Depreciation and Return Based on Spooner & Merrill's Appraised Value of Power System Property as of April 30, 1930, as Shown by Statement Next Following

Power system operating expenses and taxes:	
Power purchased and generated (85,295,839 K. W. H. at $.0101303)	$864,073.99
Transmission expense	29,125.12
Transformation expense	32,525.25
General and Miscellaneous	19,725.07
Taxes	75,942.04
Cost of energy used by other departments of the electric utility.	2,680.89*
Total operating expenses and taxes	$1,018,710.58
Less: Gross revenue derived from the transmission and sale of energy to the Attica Electric Company and Northern Indiana Power Company adjusted to rate of 1¼c per K. W. H.	441,761.95
Net operating expenses and taxes	$576,948.63
Depreciation 4% of $3,088,093.00	123,523.72
Return 8% of $3,637,650.00	291,012.00
Cost of energy at gateway of cities and towns	$991,484.35

Unit cost per K. W. H. at gateway of the cities and towns served from the power system:

$\frac{991,484.35}{41,032,962}$ K. W. H. delivered at gateway, etc., equals .... $.024163 per KWH

Power Department Operating Expenses and Taxes

Total electric steam power production	$10,042.31
Power purchased:	
Illinois Power and Light Company	37.50
Indiana Electric Corporation	847,784.37
Interstate Public Service Company	4,708.35
Terre Haute, Indianapolis & Eastern Traction Company	1,501.43
Total power purchased and generated	$864,073.99

[* Red in copy.]

[fol. 434] Page 10

Power System Property Valuation Spooner and Merrill's Appraisal September 1, 1927, Plus Gross Additions and Betterments to April 30, 1930, at Book Cost Less Retirements for Same Period at Appraised Value

	Cost of reproduction	
	New	Depreciation
Generating plants	$536,644.00	$424,282.00
Transmission lines	1,702,846.00	1,588,875.00
Substations	803,079.00	775,060.00
Carrier current and telephone equipment	52,712.00	50,169.00
General equipment	.....	.....
Total power system utility property (including land)	$3,095,281.00	$2,838,386.00
Less: Value of power system land, including above	7,188.00	7,188.00
Depreciable property	$3,088,093.00	$2,831,198.00
Plus: Value of land deducted above		7,188.00
Total physical property		$2,838,386.00
Materials and supplies		90,000.00
Working cash		127,352.00
Going concern value (15% of $3,095,281)		464,292.00
Cost of financing		117,620.00
Total value power system property		$3,637,650.00
Depreciation 4% of $3,088,093 equals		123,523.72
Return 8% of $3,637,650 equals		291,012.00

[fol. 435] Page 11

Operating Balance Entire Company Based on Revenues, Operating Expenses and Depreciation for the Year Ended May 31, 1930, and Spooner & Merrill's Appraised Value of the Electric Utility Property as Shown by Statement Next Following

Gross revenue (including revenue from the transmission and sale of energy to the Attica Electric Company and Northern Indiana Power Company adjusted to rate of 1¼c per K.W.H.)		$1,741,308.40
Operating expenses, taxes and depreciation:		
Power department expenses and taxes—gross.	$1,018,710.58	
Local electric utility expense	$245,221.59	
Local electric utility taxes	39,943.55	
Total local electric utility expenses and taxes	$285,165.14	
Depreciation 4% of $4,783,971	191,358.85	
Total operating expenses, taxes and depreciation		1,495,234.56
Balance available for return on the value of the electric utility property		$246,073.84

Rate of return:

Balance of $246,073.84 shown above is equivalent to a return of 4.43 per cent on the depreciated property value of $5,556,091.00.

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Property Valuation—Entire Electric Utility—Spooner & Merrill's Appraisal September 1, 1927, Plus Gross Additions and Betterments to April 30, 1930, at Book Cost Less Retirements for Same Period at Appraised Value

		Cost of reproduction	
		New	Depreciation
Local property (including Martinsville)		$1,699,078	$1,513,366
Power system property		3,095,281	2,838,386
Total electric utility property (including land)		$4,794,359	$4,351,752
Less Land:			
Power System	$7,188		
Local	3,200	10,388	10,388
Depreciable property		$4,783,971	$4,341,364
Materials and supplies			140,000
Working cash			163,000
Going concern value (15% of $4,794,359)			719,154
Cost of financing			182,185
Total value electric utility property			$5,556,091
Return 8% of $5,556,091 equals			444,487.28
Depreciation 4% of $4,873,971 equals			191,358.84

[fol. 436] Page 13

Energy Statement—Power System and Martinsville Local, Year Ended May 31, 1930

	K. W. H. delivered	K. W. H. purchased and generated
Power System:		
Northern Indiana Power Company	29,136,300	.....
Corrected for 2.1% line loss	.....	29,761,287
Attica Electric Company	6,204,652	.....
Corrected for 8.75% line and transformer loss	.....	6,799,618
Total Northern Indiana Power Company and Attica Electric Company	35,340,952	36,560,905
Wabash Valley Electric Company cities, towns, etc., Clinton-Lafayette Line	3,780,800	.....
Corrected for 12.4% line and transformer loss	.....	4,315,982
Other Wabash Valley Electric Company cities, towns, etc.	37,252,162	.....
Corrected for 16.133% line and transformer loss.	.....	44,418,952
Total Wabash Valley Electric Company cities, towns, etc.	41,032,962	48,734,934
Total K. W. H. delivered	76,373,914	.....
Total K. W. H. purchased and generated	.....	85,295,839
Martinsville local:		
Energy delivered to city of Martinsville on low side of substation transformers		2,528,511
Energy delivered to customers' meters in city of Martinsville, Indiana		2,162,353
Distribution loss—K. W. H.		366,158
Per cent distribution loss—Martinsville		14.48%

Page 14

Requirement for Material and Supplies and Working Cash and Apportionment of Same Between Local and Power System Departments May 31, 1930

Material and Supplies:

Total requirement		$140,000.00
Apportionment:		
Power system	$90,000.00	
Local, other than Martinsville	40,000.00	
Martinsville local	10,000.00	

[fol. 437] Working Cash:

Total requirement based on one and one-half months operating expenses and taxes—1/8 of $1,303,875.72 equals	$163,000.00

Apportionment:

Basis of local expenses and taxes.

	Operating expense	Per cent	Apportionment
Local, other than Martinsville	$258,304.98	19.81	$32,290.00
Martinsville local	26,860.16	2.06	3,358.00
Power system	1,018,710.58	78.13	127,352.00
Total	$1,303,875.72	100.00	$163,000.00

EXHIBIT 23-A

Itemized Statement of Undistributed Construction Costs Included by Abbett in Appraisal of Power System Property.

EXHIBIT 23-B

Same Included by Abbett in Appraisal of Martinsville Local and Rural Property.

EXHIBIT 24

Contract Between Husselman and City of Martinsville, Dated March 29, 1930, Provides for Payment of $250 on April 7, 1930, and a Further Sum Equal to 25% of Any Rate Reduction Computed on Basis of the 12 Months Preceding the Date when the Reduced Rates Became Effective.

EXHIBIT 25

Estimate of Cost of Diesel Electric Generating Plant for Martinsville
(Stone and Webster)

Plan 1:	
Total cost of plant, including going value, etc.	$305,000
Plan 2:	
Total cost of plant, including going value, etc. with addition of air filters	350,000

	Plan 1	Plan 2
Total cost per K. W. H.	3.167c	3.162c
Change per K. W. H. per ¼c change in price of oil	.0286c	.0287c

[fol. 438] EXHIBIT 26

Reconciliation of Differences Between Appraisals of Power System by Spooner and Merrill and Public Service Commission of Indiana

	Cost of reproduction less depreciation		
	P. S. C. I. Dec. 31, 1929	S. & M. April 30, 1930	Total difference
Generating plants	$364,313	$424,282	$59,969
High voltage substation	673,745	737,386	63,641
High voltage transmission	1,337,308	1,409,227	71,919
Telegraph and telephone	53,029	50,169	2,860*
Low voltage substation	13,406	37,674	24,268
Low voltage transmission	100,544	178,499	77,955
	$2,542,345	$2,837,237	$294,892
[*Red in copy.]			
Martinsville feeder allocated to power system	.....	1,149	1,149
Working cash	103,727	217,352	113,625
Going concern value	222,294	464,292	241,998
Cost of financing	None allowed	117,620	117,620
	$2,868,366	$3,637,650	$769,284

EXHIBIT 27

Comparison of Appraisals by Spooner and Merrill and Public Service Commission of Indiana of Martinsville Local Electric Distribution as of May 1, 1930 Inventory

	Cost of reproduction less depreciation May 1, 1930		
	P. S. C. I. Priced May 1, 1930	S. & M. Priced May 1, 1929	Difference
General plant property and equipment, including general overhead	$72,757	$90,872	$18,115
Power plant land and structures allocated to local use	not added	10,936	10,936
		$101,808	
Less feeder to Morgantown line	not deducted	1,149*	1,149*
	$72,757	$100,659	
Materials, supplies and working cash	2,968	13,358	10,390
Going concern value	7,275	17,063	9,788
	$83,000	$131,080	
Cost of financing	not added	4,322	4,322
Total cost of reproduction less depreciation as of May 1, 1930	$83,000	$135,402	$52,402

[*Red in copy.]

NOTE.—Spooner and Merrill prices May 1, 1929. Public Service Commission of Indiana prices May 1, 1930.

[fol. 439] **EXHIBIT 28**

Pages 1, 1-A, 1-B

Operating Balance Entire Electrical System Year Ended May 31, 1930, Giving Effect to Application of Rates Ordered by Public Service Commission Order No. 8894 to Consumption by Customers in Martinsville, Clinton, Greencastle, Jasonville and Sullivan for Year Ended May 31, 1930—Allocation of Clinton-Lafayette Transmission Line Method—Contains 16 Pages.

Gross revenue	$1,299,546.45
Operating expenses, taxes and depreciation	1,071,012.94
Balance available for return	$228,534.51
Less: Estimated annual reduction in revenue by application of rates of P. S. C. I. order No. 8894 to consumption in Martinsville, Clinton, Greencastle, Jasonville and Sullivan for year ended May 31, 1930	64,058.75
	$164,475.76
Rate of return of $164,475.76 on property value of $4,650,112 equals	3.54%
Giving effect to a deduction in Martinsville local revenue from application of rates in Public Service Commission Order No. 8894, estimated to be $15,901.70, results in a deficit of	

Martinsville Operating Balance Year Ended May 31, 1930 (Based on KWH Cost at Gateway of $.022897) Local Revenue, Operating Expenses, Depreciation and Taxes for Year Ended May 31, 1930, and Spooner and Merrill's Appraised Value of Martinsville Local Electric Utility as of April 30, 1930.

Gross Revenue:

Residence service	$32,349.60
Commercial service	30,746.85
Commercial power	34,389.38
Miscellaneous	284.59
Total gross revenue	$97,770.42

Operating expenses, taxes and depreciation:

Power cost—2,528,511 KWH at $.022897	$57,895.32	
Miscellaneous	24,280.18	
Taxes	2,579.98	
Depreciation	4,534.04	
Total		89,289.52
Balance		$8,480.90
Balance of $8,480.90 is equivalent to a return on property value of $135,402 of		6.26%

[fol. 440] **Pages 2, 3, 4, 5**

Detail of Operating Expenses and Taxes Year Ended May 31, 1930

Operating expenses and taxes:

Power cost (see summary sheet)	$57,895.32
Distribution	5,607.82
Utilization	1,499.58
Commercial	2,255.72
Uncollectible Accounts reserve charge	578.06
New business	2,590.39
General and miscellaneous	16,668.86
Indirect charges to construction (Cr.)	4,920.25*
Taxes	2,579.98
Total operating expenses and taxes	$87,514.08
Depreciation	4,534.04
Total operating expenses, taxes and depreciation	$89,289.52

[*Red in copy.]

Martinsville Local Electric Property Valuation Spooner and Merrill's Appraisal May 1, 1930, for Distribution System. Other Values Spooner and Merrill's September 1, 1927, Appraisal Plus Gross Additions and Betterments April 30, 1930, at Book Cost Less Retirements for Same Period at Appraised Value

	Cost of reproduction	
	New	Less depreciation
Power plant property for local use only—less land	$12,099	$10,560
Distribution system	95,865	85,193
General equipment	5,412	4,530
Total local electric utility property—less land	$113,376	$100,283
Plus land	376	376
	$113,752	$100,659
Materials and supplies		10,000
Working cash		3,338
Going concern value (15% of $113,752)		17,063
Cost of financing (3.8% of $113,752)		4,322
Total value electric utility property		$135,402
Depreciation 4% of $113,376 equals		4,535.04
Return 8% of $135,402 equals		10,832.16

[fol. 441] Pages 6, 7, 8

Energy Cost at Gateway of Wabash Valley Electric Company Cities and Towns Served from the Power System Based on Power System Operating Expenses and Taxes for the Year Ended May 31, 1930, and Depreciation and Return Based on Spooner and Merrill's Appraised Value of Power System Property as of April 30, 1930

Power system operating expenses and taxes:	
Power purchased and generated (85,295,839 K. W. H. at $.0101303)	$864,073.99
Transmission expense	29,125.12
Transformation expense	32,525.25
General and miscellaneous	19,725.07
Taxes	75,942.04
Cost of energy used by other departments	2,680.89*
	$1,018,710.58
[* Red in copy.]	
Less: Operating expenses and taxes on property allocated to use by Northern Indiana Power Company and Attica Electric Company per detailed statement following	393,855.94
Net operating expenses and taxes	$624,854.64
Depreciation 4% of $2,328,951	93,158.04
Return 8% of $2,731,671	218,533.68
Cost of energy at gateway of cities and towns	$936,546.36

$936,546.36 cost delivered at gateway, etc.
41,032,962 K.W.H. equals ..... $.022897 per K.W.H.

Details of Power Department Operating Expenses and Taxes Year Ended May 31, 1930

Power generated and purchased:	
Steam power generation	$10,042.34
Power purchased:	
Illinois Power and Light Company	37.50
Indiana Electric Corporation	847,784.37
Interstate Public Service Company	4,708.35
Terre Haute, Indianapolis & Eastern Traction Company	1,501.43
Total power purchased	$854,031.65
Total power generated and purchased	864,073.99

[fol. 442] Page 10

Power System Property Valuation Spooner and Merrill's Appraisal September 1, 1927, Plus Gross Additions and Betterments to April 30, 1930, at Book Cost Less Retirements for Same Period at Appraised Value Less Property Allocated to Use of Northern Indiana Power Company and Attica Electric Company

	Cost of reproduction	
	New	Depreciation
Generating plants	$536,644	$424,282
Transmission lines	1,702,846	1,588,875
Substations	803,079	775,060
Carrier Current and Telephone equipment	52,712	50,169
General equipment	.....	.....
Total power system utility property (including land)	$3,095,281	$2,838,386
Less: Value of power system land, including above	7,188	7,188
Depreciable property	$3,088,093	$2,831,198
Plus: Value of land deducted above	.....	7,188
Total physical property	.....	$2,838,386
Materials and supplies	.....	90,000
Working cash	.....	127,352
Going concern value (15% of $3,095,281)	.....	464,292
Cost of financing (3.8% of $3,095,281)	.....	117,620
Total value power system property	.....	$3,637,650
Less: Value allocated to Northern Indiana Power Company and Attica Electric Company	759,142	905,979
Basis for depreciation and retirement on remainder of power system property	$2,328,951	$2,731,671
Depreciation 4% of $2,328,951 equals		93,158.04
Return 8% of $2,731,671 equals		218,533.68

[fol. 443] Page 11

Operating Balance Entire Company Based on Revenues, Operating Expenses and Depreciation for the Year Ended May 31, 1930, and Spooner and Merrill's Appraised Value of the Electric Utility Property

Gross revenue (exclusive of revenue from the transmission and sale of energy to the Attica Electric Company and Northern Indiana Power Company)	$1,299,546.45

Operating expenses, taxes and depreciation:		
Power department expenses and taxes—gross.	$1,018,710.58	
Less: Operating expenses and taxes on property allocated to use by Northern Indiana Power Company and Attica Electric Company (see detail statement)	393,855.94	
Net power department expenses and taxes	$624,854.64	
Local electric utility expense	$245,221.59	
Local electric utility taxes	39,943.55	
Total local electric utility expenses and taxes	285,165.14	
Depreciation 4% of $4,024,829	160,993.16	
Total operating expenses, taxes and depreciation		1,071,012.94
Balance available for return on the electric utility property		$228,534.51

Rate of return:

Balance of $228,534.51 shown above is equivalent to a return of 4.91 per cent on the depreciated property value of $4,650,112.

[fol. 444] Page 12

Entire Electric System Allocation of Costs of Operation, Maintenance and Taxes, Clinton-Lafayette Transmission Line and Transformer Stations Connected Thereto, Expenses, Etc., for Year Ended May 31, 1930

		Allocation	
	Total expenses, etc.	Wabash Valley Elec. Co.	Attica El. Co. Northern Ind. Power Company
Transformer Stations:			
Attica (Direct)	$3,948.86	$.....	$3,948.86
Lafayette "	934.81	.....	934.81
Newton "	261.39	.....	261.39
Transmission expense:	7,293.97		
Allocated to Wabash Valley Electric Company—10.56%	.....	770.24	.....
Allocated to Northern Indiana Power Company and Attica Electric Company—89.44%	.....	.....	6,523.73
Taxes:	17,863.86		
Allocated to Substation service Northern Indiana Power Company and Attica Electric Company (Direct)	.....	.....	5,688.06
Allocated to Wabash Valley Electric Company account transmission line—10.56%	.....	1,285.76	.....
Allocated to Northern Indiana Power Company and Attica Electric Company account transmission line—89.44%	.....	.....	10,890.04
Total	$30,302.89	$2,056.00	$28,246.89
Purchase cost of energy for Northern Indiana Power Company and Attica Electric Company 36,560,905 K.W.H. at $.01	.....	.....	365,609.05
Total expenses and taxes			$393,855.94

[fol. 445] Page 13

Entire Electric Utility Spooner and Merrill's Appraisal September 1, 1927, Plus Gross Additions and Betterments to April 30, 1930, at Book Cost, Less Retirements for Same Period at Appraised Value, Less Property Allocated to Use of Northern Indiana Power Company and Attica Electric Company

		Cost of reproduction	
		New	Depreciation
Local property (including Martinsville)		$1,699,078	$1,513,366
Power system property		3,095,281	2,838,386
Total electric utility property (including land)		$4,794,359	$4,351,752
Less land:			
Power system	$7,188		
Local	3,200		
		10,388	10,388
Depreciable property		$4,783,971	$4,341,364
Plus land deducted above			10,388
Total electric utility property			$4,351,752
Materials and supplies			140,000
Working cash			163,000
Going concern value (15% of $4,794,359)			719,154
Cost of financing (3.8% of $4,794,359)			182,185
Total value electric utility property			$5,556,091
Less: Value allocated to Northern Indiana Power Company and Attica Electric Company		759,142	905,979
Total value electric utility property used for Wabash Valley Electric Company business		$4,024,829	$4,650,112
Depreciation 4% of $4,024,829 equals			160,993.16
Return 8% of $4,650,112 equals			372,008.96

[fol. 446] Page 14

Investment in Transmission Line and Substation to Serve Attica Electric Company, Northern Indiana Power Company and Wabash Valley Electric Company Cities and Customers on Clinton-Lafayette Line

	Cost of reproduction	
	New	Depreciation
Used entirely for Attica Electric Company and Northern Indiana Power Company:		
Lafayette Substation	$137,302	$134,556
Attica "	54,480	53,390
Newton "	25,907	24,612
	$217,689	$212,558
Materials and supplies		6,741
Working cash		643
Going concern (15% of $217,689)		32,653
Cost of financing (3.8% of $217,689)		8,272
		$260,867

	Cost of reproduction	
	New	Depreciation
Used jointly by Wabash Valley Electric Company and Power Purchasing Companies:		
Clinton-Lafayette Line	$544,550	$528,842
Covington-Danville Line	42,918	42,060
Carrier current, Attica and Lafayette	17,913	17,017
	$605,381	$587,919
Materials and supplies		18,639
Working cash		910
Going concern value (15% of $605,381)		90,807
Cost of financing (3.8% of $605,381)		23,004
		$721,279

Wabash Valley Electric Company delivers or wholesales to cities and towns 4,315,982 K. W. H. of a total of 40,876,887 K. W. H. input to the Clinton-Lafayette Line at Clinton. This is 10.56% of the total input.

Allocate to Wabash Valley Electric Co.	10.56% x $605,381 = $ 63,928	Basis for depreciation.
	10.56% x $721,279 = $ 76,167	Basis for return.
Allocate to Attica Electric Company and Northern Indiana Power Com-Company	89.44% x $605,381 = $541,453	Basis for depreciation.
	89.44% x $721,279 = $645,112	Basis for return.

Summary

	Basis for depreciation	Basis for return
Lafayette, Attica and Newton substation	$217,689	$260,867
Clinton-Lafayette Line allocated to Northern Indiana Power Company and Attica Electric Company	541,453	645,112
Total allocated to use by Northern Indiana Power Company and Attica Electric Company	$759,142	$905,979

[fol. 447] Page 15

Energy Statement—Power System and Martinsville Local, Year Ended May 31, 1930

	K.W.H. delivered	K.W.H. purchased and generated
Power system:		
Northern Indiana Power Company	29,136,300	
Corrected for 2.1% line loss		29,761,287
Attica Electric Company	6,204,652	
Corrected for 8.75% line and transformer loss		6,799,618
Total Northern Indiana Power Company and Attica Electric Company	35,340,952	36,560,905
Wabash Valley Electric Company cities, towns, etc., Clinton-Lafayette line	3,780,800	
Corrected for 12.4% line and transformer loss		4,315,982
Other Wabash Valley Electric Company cities, towns, etc	37,252,162	
Corrected for 16.135% line and transformer loss		44,418,952

	K.W.H. delivered	K.W.H. purchased and generated
Total Wabash Valley Electric Company cities, towns, etc.	41,032,962	48,734,934
Total K.W.H. delivered	76,373,914	
Total K.W.H. purchased and generated		85,295,839
Martinsville Local:		
Energy delivered to city of Martinsville on low side of substation transformers		2,528,511
Energy delivered to customers' meters in city of Martinsville, Indiana		2,162,353
Distribution loss—K.W.H.		366,158
Per cent distribution loss—Martinsville		14.48%

[fol. 448] Page 16

Requirement for Material and Supplies and Working Cash and Apportionment of Same Between Local and Power System Departments May 31, 1930

Materials and Supplies:		
Total requirement (based on average book investment)		$140,000.00
Apportionment (basis of property values):		
Power system	$90,000	
Local, other than Martinsville	40,000	
Martinsville local	10,000	
Working Cash:		
Total requirement based on one and one-half months operating expenses and taxes—1/8 of $1,303,875.72 equals		$163,000.00

Apportionment:

Basis of local expenses and taxes.

	Operating expense	Per cent	Apportionment
Local, other than Martinsville	$258,304.98	19.81	$32,290.00
Martinsville local	26,860.16	2.06	3,358.00
Power system	1,018,710.58	78.13	127,352.00
Total	$1,303,875.72	100.00	$163,000.00

Exhibit 29

Correction and Adjustment on Apportionment of Working Cash, Material and Supplies (Defendants' Ex. 102) for Wabash Valley Electric Company

Company expense for 1929, after deducting power purchases and taxes	$350,695.09
Martinsville local expense after deducting power expense, taxes, labor and indirect charges to construction	23,061.57
Proportion of Martinsville to system expense	6.58%
Working cash estimate for whole system based on one and one-half months	43,837.00
Proper allotment for Martinsville on 6.58% ratio	2,884.00
Material and supplies	8,349.00
Proper total working capital—Martinsville	$11,233.00
Defendants' allowance—Martinsville—(Ex. 101)	2,968.00

[fol. 449] **Material and Supplies:**

Balances on hand at Martinsville, December 31, 1929:		
Merchandise		$3,595.26
Meters		1,270.06
Transformers		1,652.05
Electric line material	$4,504.60	
Less estimated value of materials used for power system purposes	1,200.00	
Remainder local use		3,304.60
Total local material and supplies		$9,821.97
Allocation to Martinsville and Martinsville outlying territory:		
Martinsville (85% Abbett's estimate)		$8,349.00
Martinsville outlying (15% Abbett's estimate)		1,473.00
Total		$9,822.00

EXHIBIT 30

Allocation of Portion of Power System Property Value to Northern Indiana Power Company and Attica Electric Company Based on Demands of These Systems (Using Commission's Exhibits 104, 105 and 106 as Basis for Total System Demands and Property Values)

System maximum demand September 4, 1929 (Ex. 106)		22,518 K.W.H.
10% adjustment for losses		20,267 K.W.H.
Maximum demand Northern Indiana Power Company September 30, 1929		12,800 K.W.
Maximum demand Attica Electric Company July 31, 1929		1,456 K.W.
Percentage of Northern Indiana to system adjusted demand	63.1%	
Percentage of Attica Electric to system adjusted demand	7.2%	

	System	Northern Indiana	Attica
Depreciation base (ex. 104)	$2,542,345	$1,604,220	$183,049
Return base (Ex. 104)	2,868,366	1,809,939	206,522
Unit cost per K.W.H.		$.0195	$.0154

[fol. 450] EXHIBIT 31

Correction and Adjustment of Defendants' Exhibit 130 to Correspond with Facts as to Contract for Power Between Indiana Electric Corporation and Columbia Power Company

Increase in demand of 2,650 K.W. as in Exhibit 130 would result in annual increase for life of contract of	$74,412
Cost of producing foregoing K.W. in Clinton, Sullivan and Martinsville	39,633
Annual saving	$34,779
Capitalization of saving at 8% gives plants an economic value of	$434,738

EXHIBIT 32

Correction and Adjustment of Commission's Exhibit 106

System maximum demand of Wabash Valley Electric Company on September 4, 1929		22,518 K.W.
Adjustment of 10% for losses		20,267 K.W.
Per cent Martinsville maximum demand to consumer maximum demand	$\frac{678}{20267}$ =	3.35%
Total cost of reproduction of system including generating plants (Ex. 104)		$2,868,366
Portion of system allocated to Martinsville on basis of 3.35%		96,090

EXHIBIT 33

Comparative Calculation Based on Defendants' Exhibit 106

Maximum demand for system September 4, 1929	22,518 K.W.
Less 10% loss	20,266 K.W.
Less interchange companies demand	8,098 K.W.
Net demand of balance of consumers at point of delivery	12,168 K.W.
Maximum demand by Martinsville at point of delivery November, 1929	678 K.W.
Ratio of Martinsville demand to system demand $\frac{678}{12,618}$ =	5.57%

EXHIBIT 34

Stipulation

Only inventory and appraisal offered in evidence at the hearing before the Public Service Commission of Indiana covering plaintiff's entire electrical property was that of Spooner & Merrill, made as of September 1, 1927.

The appraisal by Spooner & Merrill so offered in evidence showed the reproduction value less observed depreciation of plaintiff's entire electrical property to be $4,580,718 on September 1, 1927, and the reproduction value less observed depreciation of the power system property included therein was $3,198,139.00.

The only other evidence at said hearing of the value of plaintiff's entire electrical property was the testimony of the appraisal engineers relative to their inventories and appraisals and that of book cost as of August 31, 1927, which on said date amounted to $4,277,629.67 not including going value, materials and supplies or working cash.

Abstract of Defendants' Exhibits

[fol. 451] EXHIBIT 100

Appraisal of Martinsville Local Electric Property by Engineering Department of Public Service Commission—Consists of 55 Sheets of Itemized Inventory and Appraisal. Inventory and Prices as of May 1, 1930

	Cost of reproduction	
	New	Depreciated
Poles, towers and fixtures	$20,670	$16,532
Overhead conductors	12,928	11,636
Services	4,963	3,970
Line transformers	13,920	11,832
Transformer installation	1,879	1,597
Consumers meters	14,977	12,713
Meter installations	767	652
Office equipment	2,699	2,159
Shop equipment	515	412
Transportation equipment	1,516	970
Laboratory equipment	564	479
Total land, plant and equipment	$75,398	$62,952
Total undistributed construction costs	9,939	8,297
Administration and legal	1,508	1,508
Total	$86,845	$72,757
Materials and supplies	8,684*	8,684

* This exhibit (sheet 26) shows that the average electric materials and supplies kept at Martinsville in 1929, not including plant supplies, was $10,217, and Commission's engineer Abbett allocated 85% of this, or $8,684, to Martinsville.

Exhibit 101

Cost of reproduction depreciated (from Exh. 100)	72,757
Cash working capital and materials and supplies	2,968
Going value	7,275
Total cost new, depreciated	$83,000

Exhibit 102

Working Cash Capital, Materials and Supplies for System—Public Service Commission

Total operating expenses, 1929, excluding power cost and taxes	$350,695.09
Working cash—1-1/2 months' operating expense	43,837.00
Materials and supplies	164,437.00
Total	$208,274.00
Total property of system as shown by balance sheet December 31, 1929	$5,102,133.91
Percentage of materials, supplies and cash to property $\frac{208,274}{5,102,133}$	4.08%

[fol. 452]

Exhibit 103

Appraisal of Power System Property by Engineering Department of Public Service Commission—Consists of over 500 Sheets. Inventory as of September 1, 1927, Net Additions to December 31, 1929, Prices as of March, 1929

	Cost of reproduction	
	New	Depreciated
Generating plants	$516,600	$309,388
High voltage substations	482,467	433,609
" " transmission	986,309	892,877
Carrier current, telephone	37,253	31,984
Low voltage substation	14,289	11,423
" " transmission	101,083	86,249
Total land, labor and equipment	$2,138,001	$1,765,530
Undistributed Construction Costs Omissions and contingencies	$36,371	$30,035
Engineering costs including architects	105,733	87,314
Law expenditures during construction	5,288	4,367
Miscellaneous	10,575	8,733
Taxes during construction	17,023	14,058
Interest during construction	85,850	70,895
Superintendence of construction	34,636	28,602
Total undistributed construction costs	$295,476	$244,004
Total cost of reproduction of tangible fixed property	2,433,477	2,009,534
Administration and legal	42,760	42,760
Total	$2,476,237	$2,052,294
Net capital additions September 1, 1927 to December 31, 1929		490,051
Total—Power system as of December 31, 1929		$2,542,345

(Without working capital and going value—for these items see Exh. 104.)

Generating plant, Sullivan, reproduction cost depreciated $39,165

[fol. 453] EXHIBIT 104

Appraisal of Power System—Public Service Commission

Cost of reproduction of power system depreciated as of December 31, 1929 exclusive of power plants	$2,222,942
Working cash, materials and supplies 4.08%	90,696
Going value 10%	222,294
Total depreciated as of December 31, 1929 less power plants	$2,535,932
Cost of reproduction depreciated as of December 31, 1929, including power plants, and structural overheads	2,542,345
Working cash, materials and supplies 4.08%	103,727
Going value same as power system less power plants	222,294
Total depreciated as of December 31, 1929 including power plants	$2,868,366

EXHIBIT 105

Appraisal of Generating Plants—Public Service Commission

Appraisal as of September 1, 1927	$309,388
Total overhead 15%	46,408
Total	$355,796
Net additions to December 31, 1929	9,480
Total plants as of December 31, 1929	$365,276
Less:	
Land structures, equipment in generating plants used and useful to power system as of December 31, 1929	45,873
Non-useful portion of generating plants	$319,403
Appraisal of system property including generating plants as of December 31, 1929	$2,542,345
Less non-useful portion of generating plants	319,403
Cost of reproduction as of December 31, 1929 of power system exclusive of power plants, materials and supplies, going value and working cash	$2,222,942

[fol. 454] EXHIBIT 106

Allocation of Power System to Martinsville Based on Demands—Public Service Commission

Maximum system demand—September 4, 1929	22,518 KW
Martinsville demand same date and time	458 KW
Maximum Martinsville demand November, 1929	678 KW
Ratio of maximum system and Martinsville demands $\frac{678}{22,518}$	3.01%
Total cost of reproduction of system depreciated (Exhibit 104) including generating plants	$2,868,366
Power system properties allocated to Martinsville on basis of 3.01%	$86,338
Martinsville local	83,000
Total rate base—Martinsville	$169,338

[fol. 455] EXHIBIT 107

Report by Accounting Department of Public Service Commission of Indiana of Examination of Records of Wabash Valley Electric Company—for Period from January 1, 1929 to December 31, 1929

Page 13: Material and supplies charged to Martinsville District

Regular	$26,159.39
Fuel	713.24
Stores, freight, handling	2,191.68
Total	$29,064.31

Page 27: Operating Revenues and Expenses, Martinsville Electric

Revenues:

Residence lighting	$31,254.69
Commercial lighting	31,127.89
Standard and large power	35,773.44
Current used by company and miscellaneous revenues	1,394.89
Total revenue 1929	$99,550.91

Operating Expenses, Martinsville:

Power 2,532,798 KWH @ .0133 (See p. 47)	$32,800.82
Distribution	8,496.08
Consumption	1,475.80
Commercial	2,671.10
New Business	3,038.92
General (including $5,180.65 annual amortization of their rate case expense)	14,911.92
Taxes	2,527.23
Total operating expenses excluding depreciation, 1929	$65,921.87
Net operating revenue before depreciation—Martinsville, 1929	$33,629.04
Less non-operating revenue (appliance sales)	503.56
Gross income before depreciation, 1929	$33,125.48
Page 29: Power expense apportioned to Martinsville, 1929	33,726.33
Less: Current used by company	925.51*
Martinsville power expense 1929	$32,800.82

[* Red in copy.]

Page 40: Net operating revenue whole electric system, 1929 .... $393,749.59

Page 45: Current generated, 1929:

Clinton	96,640 KWH
Sullivan	6,300 "
Martinsville	20,530 "
Total generated	123,470

[fol. 456]

Current purchased, 1929:

Indiana Electric Corporation	83,781,646 KWH
T. H. I. & E. Traction Company	39,316 "
Interstate Public Service Co.	312,960 "
Illinois Power & Light Co.	3,000 "
Total purchased	84,136,922 KWH
Total generated and purchased	84,260,392 KWH

Substation output:

Total substation output, 1929 including Martinsville	75,811,628 KWH
Martinsville substation output, 1929	2,532,798 KWH
Loss station to substation output	8,448,764
Loss station to sales	12,017,602
Loss substation to sales	3,568,838
Percentage of loss station to substation output	10.0269%
Percentage of loss station to sales	14.2624%
Percentage of loss substation to sales	4.7075%
Page 47: Total substation readings, 1929	75,811,628 KWH
Deduct current purchased direct	51,668 "
	75,759,960 KWH
Martinsville readings, 1929	2,532,798 KWH
Total power costs, 1929	$1,000,551.54
Deduct direct purchases	1,499.61
	$999,051.93
Total apportioned to Martinsville	$33,726.33*

* This figure was reached by the Commission's auditor who prepared this exhibit by apportioning to Martinsville that proportionate part of total power system cost which Martinsville substation meter readings bears to total substation meter readings.

KWH sold to Martinsville	2,186,564 KWH
Cost per KWH sold	$.0154
Cost per KWH substation input	.0133**

** This figure was reached by the Commission's auditor who prepared this exhibit by dividing the total power system cost by the total of all substation meter readings.

[fol. 457] Wabash Valley Electric Company

Balance Sheet—Entire Company

Page 9

Assets

	Jan. 1, 1929	Dec. 31, 1929
Property & plant:		
Property and plant July 1, 1922	$1,391,340.05	$1,391,340.05
Martinsville & Roachdale properties	588,636.67	588,636.67
Additions, Improvements and Betterments 7-1 to 12-31-22	37,999.23	37,999.23
Additions, Improvements and Betterments 1-1 to 12-31-23	112,470.73	112,470.73
Additions, Improvements and Betterments subsequent to December 31, 1923	2,297,598.48	2,578,769.94
Investment work in progress	51,903.03	370,899.15
Organization	5,136.90	5,136.90
Kingman properties	16,881.24	16,881.24
Totals	$4,501,966.33	$5,102,133.91
Investments:		
Starco Coal Company	$500.00	$500.00
Totals	$500.00	$500.00
Treasury Securities:		
Treasury Stock—Common	$256,000.00	$256,000.00
Treasury Stock—Preferred	100,000.00	100,000.00
Totals	$356,000.00	$356,000.00

	Jan. 1, 1929	Dec. 31, 1929
Current Assets:		
Cash in Bank	$65,408.52	$22,303.10
Cash on Hand	4,775.00	4,163.00
Special Deposits	.....	5,504.69
Notes Receivable	.....	1,200.00
Accounts Receivable	180,163.09	226,938.38
Material and Supplies	177,977.92	164,437.56
Totals	$428,324.53	$424,546.73
Prepaid Accounts:		
Prepaid insurance	$5,910.85	$6,329.92
Prepaid interest	905.02	.....
Totals	$6,815.87	$6,329.92
Deferred and Suspended Accounts:		
Unamortized Discounts and Expense 6% Gold Bonds	$246,167.97	$233,435.13
Unamortized Discount and Expense common stock	30,500.00	30,500.00
Unamortized discount and expense preferred stock	48,460.16	45,953.60
Deferred Debit Items	348,998.95	386,013.34
Maintenance Work in Progress	504.42	9,392.50
Mortgage Reserve	100,402.10	150,753.34
Totals	$775,033.60	$856,047.91
Total Assets	$6,068,640.33	$6,745,558.47

[fol. 458] Page 10

Liabilities

Capital Liabilities:		
Capital stock—common	$876,000.00	$876,000.00
Capital stock—preferred	856,000.00	856,000.00
Totals	$1,732,000.00	$1,732,000.00
Funded Debt:		
Wabash Valley Electric Company First Mortgage 6% Gold Bonds as of May 1, 1948	$2,822,900.00	$2,822,900.00
Totals	$2,822,900.00	$2,822,900.00
Current Liabilities:		
Notes payable	$65,097.55	.....
Accounts payable	34,774.33	$37,885.61
American Public Utilities Company Insurance account	804.25	.....
Accounts payable—inter company	31,029.64	515,025.34
Consumers deposits	22,050.64	21,298.51
Insurance trustees	815.33	2,659.36
Totals	$154,571.74	$576,868.82

	Jan. 1, 1929	Dec. 31, 1929
Accrued Liabilities:		
Interest Wabash Valley Electric Company 6% Gold Bonds	$28,229.00	$28,229.00
Dividends Wabash Valley Electric Company 7% preferred stock	8,820.00	8,820.00
Interest on notes payable	110.00	.....
Taxes	109,088.73	119,997.60
Totals	$146,247.73	$157,046.60
Reserves:		
Reserve for uncollectible notes and accounts and contingencies	$8,862.82	$15,634.85
Totals	$8,862.82	$15,634.85
Deferred Credits:		
Prepaid water	$.....	$.....
Mortgage reserve (not bondable)	100,402.10	150,753.34
Totals	$100,402.10	$150,753.34
Contributions for Line Extensions:	$28,916.23	$32,470.22
Surplus	$1,074,739.71	$1,257,884.64
Total liabilities	$6,068,640.33	$6,745,558.47

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Page 82: Martinsville gross revenue January, 1929:

Present rates	$8,215.91	
P. S. C. I. Order 8894 if applied would yield	6,783.19	
Total power purchased 1929 (Ex. 107, p. 45)	84,136,922	
Page 91: KWH input entire Wabash Valley Electric Company January 1, 1929 to December 31, 1929 as shown by master meter readings	75,811,628	
Page 84: KWH input to certain customers of Wabash Valley Electric Company:		
Attica Electric Company	6,014,822	
Northern Indiana Power Company	30,239,200	
Indiana Electric Company	1,364,942	
Total	37,618,964	
Page 90: City of Martinsville	2,532,798	
Page 84: Partial detail of input to Northern Indiana Power Company 1929-30:		
August	4,150,300	KWH
September	4,304,000	"
October	4,437,100	"
November	3,142,300	"
December	1,602,500	"

Page 18 to Page 20

Deferred Rate and Appraisal Expense—Analysis

January: 1929	Debits
C. V. 289—Treasurer of State of Indiana costs assessed by Public Service Commission in Martinsville case	$1,005.11
February:	
J. E. 114—Indiana Electric Corporation Expenses of L. B. Andrus—Martinsville	39.84

March:

	Debits
C. V. 52—Glenn VanAuken—legal services—Martinsville	600.00
C. V. 54—Marsh & McLennan—Cost of Bond—Martinsville	10.00
C. V. 77—Spooner & Merrill—Engineering service—Martinsville	81.82
C. V. 164—E. A. Hartin—Printing 50 copies of complaint in Martinsville case	134.10
C. V. 194—Spooner & Merrill—Engineering service—Martinsville	4.06
April:	
C. V. 72—Fesler, Elam & Young—Legal services—Martinsville	1,789.00
C. V. 232—Spooner & Merrill—Engineering service—Martinsville	108.29
May:	
C. V. 35—Glenn VanAuken—Legal services—Martinsville	200.00

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C. V. 43—Spooner & Merrill—Engineering service—Martinsville	1,202.80
C. V. 291—Spooner & Merrill—Engineering service—Martinsville	2,353.92
June:	
C. V. 45—Spooner & Merrill—Engineering service—Martinsville	2,697.99
C. V. 249—Spooner & Merrill—Engineering service—Martinsville	2,490.63
C. V. 250—Haskins & Sells—Accounting service—Martinsville	4,388.96
C. V. 472—Spooner & Merrill—Engineering service—Martinsville	377.00
July:	
C. V. 41—Fesler, Elam & Young—Legal service—Martinsville	100.00
C. V. 170—Glenn VanAuken—Legal service—Martinsville	100.00
C. V. 175—Spooner & Merrill—Engineering service—Martinsville	1,077.10
C. V. 199—S. C. Kivett—Legal service—Martinsville	1,000.00
Total	$19,760.62

Pages 90, 39, 24

The Martinsville district is divided and the K.W.H. input for each division in 1929, as shown by master meter readings, is as follows:

	K.W.H.
Martinsville Electric	2,532,798
Martinsville outlying:	
Martinsville rural	32,681
Morgantown	144,191
Paragon	31,920

Income Account Electric—1929:

	Martinsville	Martinsville outlying
Total electric income	99550.91	13,464.03
Operating expenses	63394.64	6,544.83
Taxes	2527.23	610.85

Surplus:

January 1, 1929	$1,074,739.71
December 31, 1929	1,257,884.64

[fol. 461] EXHIBIT 108

Gateway Cost of KWH Delivered to Martinsville

Total power cost (p-36)	$1,090,551.54
Substation cost	3,384.80
Deduction—Indirect construction charges (—)	18,242.68
	$985,693.66
Depreciation 4% on $2,542,345 (Exhibit 104)	101,693.80
Return 7% on $2,868,366 (Exhibit 104)	200,785.62
Total	$1,288,173.08
Substation output 75,811,628 KWH—1929:	
Cost per KWH	1.699 cents

EXHIBIT 109

Graph of copper prices December 1, 1929 (19.875 cts. per pound) to August 1, 1930 (12.75 cts. per pound).

EXHIBIT 110

Allocation of Power System on the Ratio of KWH Sold at Martinsville to Total Sales of Wabash Valley Electric Company

Martinsville sales 1929	2,186,564 KWH
Wabash Valley Electric Company sales	72,242,790 KWH
Ratio Martinsville sales to total sales	3.027%
Cost of reproduction depreciated including generating plants	$2,868,366
Allocated to Martinsville Basis of 3.027%	86,825
Cost of reproduction depreciated Martinsville local distribution system	83,000
Total rate base	$169,825

[fol. 462] EXHIBIT 111

Report by Accounting Department of Public Service Commission of Indiana of Examination of Records of Wabash Valley Electric Company for Period from January 1, 1927, to December 30, 1928

Page 12: Materials and Supplies Charged to Martinsville District

Regular	$12,292.32
Fuel	1,046.35
Stores, freight, handling	1,515.99
Total	$14,854.66

Page 36: Operating Revenues and Expenses, Martinsville Electric

	1927	1928
Revenues Martinsville:		
Residence lighting	$26,405.72	$26,946.85
Commercial lighting	26,832.22	27,816.58
Standard and large power	36,719.92	36,831.17
Current used by company and miscellaneous revenue	4,201.53	3,395.53
Total revenue	$94,159.39	$94,990.13
Operating Expenses Martinsville:		
Power	$32,736.95	$31,438.66
Distribution	8,091.17	8,789.45
Consumption	171.29	534.19
Commercial	2,074.04	2,311.26
New business	1,975.21	3,500.31
General	10,903.58	14,049.50
Taxes	1,925.79	2,604.15

	1927	1928
Total operating expenses excluding depreciation	$57,878.03	$63,227.52
Net operating revenue before depreciation	36,281.36	31,762.61
Non-operating revenues appliance sales	(—)556.75	109.21
Gross income before depreciation	$35,724.61	$31,871.82

Page 35: Gross income from operation whole system:

1927	$398,999.07
1928	414,088.37

Martinsville gross operating income:

1927	36,281.36
1928	31,762.61

[fol. 463] Page 65

	1927	1928
Total KWH generated	112,700 KWH	177,680 KWH
Purchased:		
Indiana Electric Corp	57,684,897 "	79,962,702 "
T. H. I. & E. Trac. Co	29,972 "	35,401 "
Interstate Pub. Serv. Co	188,100 "	273,300 "
Merchants Heat & Lt. Co	110,780 "	.....
Northern Ind. Pow. Co	345,600 "	.....
Illinois Pow. & Lt. Co	15,000 "	4,400 "
Total purchased	58,374,349 KWH	80,275,803 KWH
Total generated and purchased	58,487,049 KWH	80,453,483 KWH
Total substation output, including Martinsville	51,557,601 "	71,783,644 "
Martinsville substation output	2,280,984 "	2,426,344 "
Loss—station to substation	7,289,448 "	8,669,839 "
Loss—station to sales	10,115,303 "	21,516,986 "
Loss—substation to sales	2,825,856 "	2,847,147 "
Percentage loss—station to substation	8.0729%	9.2796%
Percentage loss—station to sales	5.8176%	3.7395%
Percentage loss—substation to sales	18.2449%	25.2151%

Page 67: Basis for Apportionment of Power Costs

	1927	1928
Total substation readings	51,545,101 KWH	71,783,644 KWH
Deduct current purchased direct	89,789 "	111,676 "
Net power system output	51,455,312 KWH	71,671,968 KWH
Martinsville readings	2,268,484 "	2,426,344 "
Total power costs	$737,284.54	$957,288.90
Deduct direct purchases	1,651.61	2,001.81
	$735,632.93	$955,287.09
Total apportioned to Martinsville	33,274.92	32,418.41
KWH sold to Martinsville	1,924,507 KWH	2,082,286 KWH
Cost per KWH sold	$.0175	$.0156
Cost per KWH substation input	$.0147	$.0134

[fol. 464]

Page 130, Page 136: KWH Input as Shown by Master Meter Readings

	1927	1928
Attica Electric Company	4,682,590 KWH	5,795,720 KWH
Northern Ind. Power Co.	15,666,974 "	31,891,500 "
Indiana Elec. Corp	1,678,980 "	778,050 "
Illinois Pow. & Lt. Co	12,600 "	.....
Interstate Pub. Serv. Co	3,000 "	.....
Total	*22,044,144 KWH	38,465,270 KWH

(* Master's report finding 25 shows 22,224,144 KWH)

Page 134, Page 141:

City of Martinsville	2,219,144 KWH	2,426,344 KWH
Total input	51,743,620 KWH	71,783,644 KWH

Page 19 to Page 28: Deferred Rate Expense—Analysis

1927:	Debits
Expenses and services, Consulting Engineers, Martinsville Rate case	$329.94
Expenses and services, Consulting Engineers, Martinsville Rate case	449.53
Engineering services and expense, in rate case	355.38
Engineering services and expense, In Martinsville Rate case	1,376.77
Engineering services and expense, Martinsville Rate	355.38
Engineering services and expense, Martinsville Rate	951.93
Engineering services and expense, Martinsville Rate	1,234.30
Engineering services and expense, Martinsville Rate case	504.66
Legal services, Glenn VanAuken, Martinsville Rate case	1,200.00
Engineering services and expenses, Martinsville Rates	181.74
Engineering services and expenses, Martinsville Rates	761.88
Engineering services, Spooner & Merrill, Inventory, etc	281.70
Engineering services, Re Martinsville Rate Case and Inventory, etc.	3,025.05
Engineering services, Re Martinsville Rate Case and Inventory, etc.	1,093.29
Inventory and Appraisal, Martinsville Rate Case and other properties	424.12
Engineering services and expenses, Martinsville Rates	86.42
Retainer fee and legal services in Martinsville Rates	400.00

[fol. 465]

Legal services, Martinsville, Fesler, Elam & Young	150.00
Expenses of VanAuken, Schiesz, Fesler, Andrus and Hartwick, Martinsville	19.00
Legal service, Martinsville, Glenn VanAuken	1,250.00
To Garber and Garber, Reporting hearing at Martinsville. Two days, Transcript, 16 copies, 281 pages each. Binding and indexing	445.40
Legal services, Glenn VanAuken, Martinsville cause No. 8894	1,850.00
1928:	
Engineering services, Martinsville rates, Inventory and Appraisal.	508.27
Engineering services, Wm. E. Vogelback	2,011.95
Legal services, Fesler, Elam & Young, Martinsville rates	650.00
Services and expense, W. M. Beardsley, Martinsville rates	204.90
Legal services, Glenn VanAuken, Martinsville rates	1,800.00
Engineering services and expense, Martinsville rates	17.50
Industrial engineering services and expense, Martinsville rates	1,081.66
Reporting, transcripts, binding expenses, Martinsville rates	900.90
Engineering services and expenses, Martinsville rates	51.47
Legal services, Glenn VanAuken, Martinsville rates	700.00
Legal services and expense, Fesler, Elam & Young, Martinsville rates	1,269.50
Fesler, Elam & Young, Legal services, Martinsville rate case	50.00
Total	$25,972.64

Page 123: Revenue for 1928

The revenue under rates in force previous to July 1, 1927, would have been	$109,493.75
Under rates voluntarily filed by plaintiff during pendency of case before Public Service Commission, effective July 1, 1927, the revenue was	94,697.22
Voluntary reduction	$14,796.53

[fol. 466] EXHIBIT 112

Report by Accounting Department of Public Service Commission of Indiana of Examination of Records of Wabash Valley Electric Company for Period from June 1, 1923, to December 31, 1926

Page 14: Materials and Supplies Charged to Martinsville District

Regular	$9,229.92
Fuel	1,009.30
Stores, freight, handling	1,182.02
Total	$11,421.24

Page 20: Operating Revenues and Expenses, Martinsville Electric

Revenues—Martinsville:	June 1 to Dec. 31, 1923	1924
Residence lighting	$7,484.43	$23,940.37
Commercial lighting	19,982.58	24,528.47
Standard and large power	20,036.05	35,345.86
Current used by company and miscellaneous revenue	924.04*	674.45*
Total operating revenue	$46,579.02	$83,140.25

[*Red in copy.]

	1925	1926
Residence lighting	$26,792.33	$25,972.19
Commercial lighting	25,235.64	25,865.79
Standard and large power	32,058.17	35,298.11
Current used by company and miscellaneous revenue	3,496.67	7,102.14
Total operating revenue	$87,582.81	$94,238.23

Operating Expenses—Martinsville Electric	June 1 to Dec. 31, 1923	1924
Power	$25,297.70	$42,025.34
Distribution	.....	.....
Consumption	46.05	30.82
Commercial	1,245.83	2,804.02
New business	860.17	2,120.10
General	6,666.68	13,756.13
Taxes	2,417.53	2,549.65
Total operating expenses excluding depreciation.	$38,153.64	$66,526.69

[fol. 467]

	1925	1926
Power	$32,215.69	$30,942.33
Distribution	5,586.26	8,742.20
Consumption	38.91	51.25
Commercial	2,982.87	2,978.06
New business	2,077.74	1,961.01
General	13,861.98	11,265.14
Taxes	3,708.28	1,693.94
Total operating expenses excluding depreciation.	$60,471.73	$57,633.93

	1923	1924
Net operating revenues before depreciation	$8,425.38	$16,613.56
Appliance sales	6.10*	93.73
Gross income before depreciation	$8,419.28	$16,707.29

[*Red in copy.]

	1925	1926
Net operating revenues before depreciation	$27,111.08	$36,604.30
Appliance sales	1,456.28	138.23*
Gross income before depreciation	$28,567.36	$36,466.07

[*Red in copy.]

Gross Income from Operations—Whole System

1923	$169,395.62—June 1 to December 31
1924	$234,407.37
1925	$305,158.00
1926	$330,998.26

[fol. 468]

EXHIBIT 113

Report of Accounting Department of Public Service Commission of Indiana Showing Comparison of Revenues at Martinsville Under Present Rates and Those Under Order 8894, Over Period of 11 Months, February to December, 1929, Inclusive, Applied to Consumer Data

Revenue present rates	$91,257.46
Revenue Public Service Commission of Indiana order No. 8894	77,966.94
Reduction in gross revenues for 11 months period	13,290.52
For January 1929, see p. 28 Ex. 107	1,432.72
Total	$14,723.24

EXHIBIT 114

Annual report—Portland, Indiana (excluded by master in report).

EXHIBIT 115

Annual report Rushville, Indiana (excluded by master in report).

EXHIBIT 116

Annual report Columbia City, Indiana (excluded by master in report).

EXHIBIT 117

Annual report Greenfield, Indiana (excluded by master in report).

EXHIBIT 118

Annual report, Peru, Indiana (excluded by master in report).

EXHIBIT 119

Annual report, Goshen, Indiana (excluded by master in report).

EXHIBIT 120

Annual report, Lawrenceburg, Indiana (excluded by master in report).

EXHIBIT 121

Annual report, Linton, Indiana (excluded by master in report).

[fol. 469]

EXHIBIT 122

Annual report, Tipton, Indiana (excluded by master in report).

EXHIBIT 123

Annual report, Madison, Indiana (excluded by master in report).

EXHIBIT 124

Tabulation of Cost of KWH Purchased Wholesale for Distribution

	Population	Total K.W.H.	Total cost	Cost per K.W.H.	From whom purchased
Linton–Municipal...	7,000	1,795,000	$33,212.50	$.0185	Interstate Pub. Ser.
Goshen–Municipal...	10,000	3,878,900	58,151.67	.0150	Interstate Pub. Ser.
Lawrenceburg–Municipal...	4,100	1,455,800	24,766.61	.0170	Interstate Pub. Ser.
Tipton–Municipal...	5,450	2,917,098	47,138.39	.0162	North. Ind. Power Co.
Madison–Private.....	10,000	2,975,400	33,789.34	.0114	Interstate Pub. Ser.

Exhibit 124 is a summary of Exhibits 119 to 123 prepared by witness Williams.

EXHIBIT 125

Tabulation of Cost of Generating Power at Local Plants

	Total K.W.H.	Average cost of coal	Cost per K.W.H.
Portland	4,904,410	3.01	$.0115
Greenfield	2,805,900	3.52	.0104
Rushville	3,228,690	3.27	.0125
Columbia City	2,219,600	3.77	.0116
Peru	9,635,520	....	.0118

N. B.—This is bare cost of generation. (Abstract p. 103.)
Exhibit 125 is a summary of Exhibits 114 to 118 prepared by witness Williams.

[fol. 470] EXHIBIT 126

Tax Return Filed by Wabash Valley Electric Company with State Board of Tax Commissioners on April 2, 1930

Page 1: Materials and supplies of system, December 31, 1929.	$164,437.06
Materials and supplies, Martinsville	27,453.06
Rest of system after deduction, Martinsville	$136,984.00
Page 8: Property and plant as per balance sheet, December 31, 1929	$5,096,997.01
Less: Book value of real estate	175,940.40
Total personal property	$4,921,056.61
Page 9-E: Gross operating income	450,453.17
Less depreciation	201,272.08
Net income	$249,181.09
Net income capitalized at 8%	$3,114,763.62

EXHIBIT 127

Cost of Producing Locally Energy to Supply Martinsville—Diesel Plant (Roy Husselman)

Cost of physical plant	$147,789.00
Engineering and superintendence	7,340.00
Interest	1,551.00
Organization	2,000.00
Materials and supplies	1,000.00
Working capital	3,270.00
	$162,950.00
Total cost new (Investment)	$163,000.00
Depreciation 4%, taxes and insurance 2%, Return 7%—Fixed cost	$21,190.00
Production cost	26,461.00
Total cost of operation	$47,651.00
KWH output	2,532,800 KWH
Average cost per KWH on switch board	1.88136c

[fol. 471]

EXHIBIT 128

Gateway Cost of Electrical Energy (Roy Husselman)

Total power system operation costs	$975,124.57
Depreciation 3.1% of depreciable property $2,069,120	64,142.72
Return 7% on $2,209,662	154,676.34
Total power cost	$1,193,943.63
Cost per KWH of input to substation or gateway on 75,811,628 KWH	1.5749c

EXHIBIT 129

Average cost per KWH of producing energy in local plants in 1928 (Roy Husselman)	7.78c
Average cost per KWH of producing energy in local plants 1929	9.58c
Average cost per KWH purchased 1929	1.001c
1928	1.008c

	New	Depreciated
Value useful portion of local plants	$33,928	$25,024
Value useful portion Martinsville plant	8,107	5,827

[fol. 472]

EXHIBIT 130

Value of Local Plants as Standby Equipment (Roy Husselman).	See Exhibit 31
Cost of current if purchased from Columbia Company is $.0023 per KWH:	
If plants are operated at time of peak demand of system and produce 2,650 KW the saving is 2650 x 300 x 12 x $.0023	$21,942.00
But to generate the above amount of current the operation of the plants, including return, depreciation, taxes, insurance, going value, etc., on Spooner & Merrill's appraisal, costs	82,004.38
During 1929 local plants generated 123,470 KWH.	
Cost of reproduction of local plants depreciated	$309,388
Undistributed costs, cash, material and supplies, going value	107,237
Total	$416,625

Return 7% on $416,625	29,164
Depreciation	14,084
Operating expenses (as charged)	11,828
Cost of generating 123,470 KWH	$55,076
Cost per KWH	0.446

[fol. 473] EXHIBIT 131

Appraisal of Martinsville Local Property as of May 1, 1930 (Roy Husselman)

	Cost of reproduction	
	New	Depreciated
Total plant and equipment	$75,398	$62,952
Total undistributed construction costs	7,603	6,347
Total	$83,001	$69,299
Organization, administration, legal and other costs	5,308	5,308
Materials and supplies	3,320	3,320
Cash working capital	3,200	3,200
Total as of May 1, 1930	$94,829	$81,127
Deduction for reduced price of copper on September 1, 1930	1,552	1,397
Grand total depreciated		$79,730

[fol. 474] EXHIBIT 132

Appraisal of Power System Used and Useful Property, Inventory as of September 1, 1927, Prices as of March 1, 1929—With Deduction for Reduced Copper Prices as of September 1, 1930 (Roy Husselman)

	Cost of reproduction	
	New	Depreciated
Generating plants	$33,928	$25,024
High voltage substations	482,467	433,609
High voltage transmission	986,309	892,877
Carrier current telephone	37,253	31,984
Low voltage substations	14,289	11,423
Low voltage transmission	101,083	86,249
	$1,655,329	$1,481,166
Undistributed construction costs:		
Omissions	$27,957	$25,021
Engineering	81,280	72,746
Low expenditures during construction	4,064	3,637
Miscellaneous construction	8,128	7,275
Taxes—during construction	12,913	11,557
Interest during construction	76,057	68,071
Superintendence	30,000	26,850
	$240,399	$215,157
Total cost of reproduction	$1,895,728	$1,696,323

Cost of reproduction depreciated	$1,696,323
Administration and legal expense	30,616
Materials and supplies	71,037
Cash working capital	18,915
Organization and all other costs to put property in operation as a going concern	19,974
Total as of September 1, 1927	$1,836,865
March 1, 1929 prices, less Reduction in copper wire—September 1, 1930	124,858
	$1,712,007
Net additions September 1, 1927 to December 31, 1929	497,655
Grand total power system (Exclusive of non-useful portion of generating plants)	$2,209,662

[fol. 475]

EXHIBIT 133

Composite Depreciation Rate Based on Cost of Reproduction New
(Roy Husselman)

System	3.1%
Martinsville	4.1%

EXHIBIT 134

Martinsville Operating Revenues, 1926 to 1929, Public Service Commission Audit

	1926	1927	1928	1929
Residence lighting	$25,972.19	$26,405.72	$26,946.85	$31,254.69
Commercial lighting	25,865.79	26,832.22	27,816.58	31,127.89
Commercial power	26,527.88	27,821.58	28,582.63	29,806.11
Wholesale light and power	8,770.23	8,898.34	8,248.54	5,967.33
Heating and cooking	671.74	1,025.55	1,894.97	.....
Sales to other public utilities	1,852.76	1,839.59	.....	.....
Miscellaneous revenues	25.10	38.78	15.64*	110.69
Rural service	675.15	425.01	506.53	10.49
Current used by company	1,844.79	856.02	701.12	871.30
Forfeited discounts	786.63	525.87	780.36	711.76
Unbilled revenue	1,819.19	142.13*	6.13*	.....
Refunds and corrections	573.22*	367.16*	465.68*	309.35*
Totals	$94,238.23	$94,159.39	$94,990.13	$99,550.91
K.W.H. sold	1,815,248	1,924,507	2,082,286	2,186,564

[*Red in copy.]

EXHIBIT 135

Income account, Martinsville, 1929, based on $87,000 value for local property (See Exhibits 136, 137, and 138.) (Carter.)

[fol. 476]

EXHIBIT 136

Martinsville—Electric Income Account, 1929, with Power Costs to Martinsville as Shown in Exhibit 107, with Certain Adjustments (Carter)

Operating revenues (Exh. 107) $99,550.91, adjusted to rates ordered*	$84,750.13
Operating expenses (Exh. 107) $66,425.43, adjusted**	54,979.45
Gross income (before depr.) $33,125.48	$29,770.68

Adjusted Income Applied to Appraisals

Total property—Martinsville Electric	P.S.C.I. appraisals	S. & M. appraisals
Local property	$83,000	$135,402
3.01% of power system	86,338	109,035
	$169,338	$244,437
Depreciation base	$149,281	$186,059
Amount available	$29,770.68	$29,770.68
For return after deducting	5,971.24	7,442.36
4% depreciation	$23,799.44	$22,328.32
Rate of return	14.1%	9.1%

* Rates ordered applied to consumer data for 1929 (Exh. 107 and 113).

** $3,384 substation labor expense deducted as belonging to power system expense, and $118.55 allocated back to Martinsville; $3,399.38 indirect charges to construction deducted as belonging to capital account; $400 allowed by commission for rate case expense substituted for $5,180.65 charged by company.

In Exhibit 135 Carter similarly computed a 13.7% return for year 1929 using Commission's value of $87,000 for local property in total base of $173,338.00.

[fol. 477] EXHIBIT 137

Martinsville—Electric, Income Based on 1929 with Rates and Power Costs as Set Out in Public Service Commission of Indiana Order 8894 (Carter)

Revenue January 1, 1929 to December 31, 1929 under rates ordered	$84,750.13
Total operating expenses including $400 amortization for rate case expense and power at gateway price of $.0172 per K.W.H.	65,313.18
Amount available for return and depreciation	$19,436.95

	P.S.C.I.	Husselman	S. & M.	S. & W.
Depreciation base	$72,757	$67,902	$100,659	$97,118
Total property value including going value, cash working capital material and supplies	83,000	79,730	135,402	119,818
Amount for depreciation and return	19,436.95	19,436.95	19,436.95	19,436.95
Less depreciation (4%)	2,910.28	2,716.08	4,026.36	3,884.72
Amount for return	$16,526.67	$16,720.87	$15,413.59	$15,552.23
Rate of return	19.9%	20.9%	11.4%	13.0%

On $87,000 value found by Commission, rate of return similarly computed by Carter in Exh. 135 is 19%.

[fol. 478] EXHIBIT 138

Amount Available for Power Costs After Allowing Expenses, 4% Depreciation, and 7% Return on Martinsville Local Property Under Rates Ordered by Public Service Commission of Indiana Order No. 8894, Based on 1929 Consumption (Carter)

Operating revenue January to December, 1929, inclusive	$84,750.13
Operating expenses including $400 amortization of rate case expense and excluding power cost	21,749.05

Amount available for power costs	P.S.C.I. appraisal	Husselman appraisal	S. & M. appraisal	S. & W. appraisal
Depreciable base	$72,757	$67,902	$100,659	$97,118
Total property	83,000	79,730	122,402	119,818
Amount available for power after deducting expenses, 4% depreciation and 7% return	54,280.80	54,703.90	49,496.58	50,729.10
Above amount permits the payment of an average gateway cost per K.W.H. of	$.0214	$.0216	$.0195	$.0200

On $87,000 valuation, the amount available for power cost similarly computed by Carter in Exh. 135 is $54,000.80, or $.0213 per K.W.H. for 2,532,798 K.W.H. resulting in a 7% return.

[fol. 479] EXHIBIT 139

Principal Agreement Between Columbia Power Company and Indiana Electric Corporation, Dated September 22, 1926

The agreement is to continue for a period of ten (10) years from the time the Indiana Electric Corporation is ready to receive electrical energy from Columbia Power Company, but is to take effect in any event on or before January 1, 1927. Upon the expiration of the ten year period the agreement is to continue until terminated by either party upon two years' written notice.

The Columbia Power Company is to deliver current at the Ohio-Indiana State Line in the form of three phase alternating current at 132,000 volts.

The maximum demand for each calendar month shall be the actual maximum demand for such month, provided it equals or exceeds the highest maximum demand of any previous month.

During the first year the minimum amount of energy taken during each calendar month shall be 13,000 kilowatts and in the event that the demand shall exceed 20,000 kilowatts the Columbia Power Company shall be given reasonable notice thereof.

It is intended that Indiana Electric Corporation will build a second transmission circuit from Lenore Substation to Indiana-Ohio Line and Columbia Power Company agrees to furnish like facilities to those given the first transmission circuit herein.

In no event is the consumption of electrical energy by the Indiana Electric Corporation to be less than 300 hours' use of the maximum demand during the current month.

Indiana Electric Corporation agrees to maintain a power factor of not less than 95% measured at the 13,200 volt bus bar of Columbia Power Company. If the average power factor for any thirty minute period during the current month between the hours of 7:00 A. M. and 8:00 P. M. falls below 95% the maximum demand shall be increased in the ratio which 95% bears to the power factor so determined as may be expressed by the formula:

$$\text{Maximum demand equals} \quad \frac{\text{measured demand times 95}}{\text{percentage power factor (lagging)}}$$

The rates paid for energy shall be

7.8 mills per KWH for all energy consumed up to and including the number of KWH equivalent to 300 hours' use of the maximum demand.

5.5 mills per KWH for all energy consumed in excess of the number of KWH equivalent to 300 hours' use of the maximum demand.

These charges shall be changed one-tenth of a mill for each increase or decrease of ten cents in the average cost of coal above $2.75 or below $2.25 per ton at Columbia Power Company's generating plant.

Indiana Electric Corporation agrees to pay all bills rendered at the end of the calendar month within ten days after such rendition but in no case is such payment to be made earlier than the fifteenth of the current month.

[fol. 480] Indiana Electric Corporation is to install and maintain a carrier current telephone communication between Columbia Power Company and Lenore Substation.

Supplemental Agreement between Columbia Power Company and Indiana Electric Corporation, dated March 14, 1928.

For a period of twelve months beginning October 7, 1928, Columbia Power Company will have available an excess capacity of 10,000 kilowatts. It is, therefore, agreed that the maximum demand for any one month shall be the maxi-

mum demand for that month only; provided that in no case shall the maximum demand be less than 13,000 kilowatts as provided in Section 4 of Article II of the principal agreement of the parties, dated September 22, 1926.

EXHIBIT 140

Monthly Maximum Demands, Lenore—Columbia, 132 K. V. Line, Year of 1929

Month	Actual monthly max. demand	Billed monthly max. demand
January	11,520	13,000
February	12,240	13,000
March	11,880	13,000
April	12,240	13,000
May	11,880	13,000
June	11,880	13,000
July	11,880	13,000
August	11,880	13,000
September	15,120*	15,120
October	15,120*	15,120
November	12,600	13,000
December	11,880	13,000

*Temporary emergency demand. Taken under term of supplemental agreement dated March 14, 1928.

[fols. 481-487] ORDER SETTLING STATEMENT OF EVIDENCE

The foregoing statement of evidence is, in all respects, hereby approved and settled, pursuant to Equity Rule 75, as a true and complete condensed statement of the material evidence adduced on the hearing before the Special Master and considered on the trial of the above entitled cause.

Dated 10 day of May, 1932.

Will M. Sparks, Circuit Judge. Thomas W. Slick, United States District Judge. Robert C. Baltzell, District Judge.

Ten days' notice per Equity Rule 75 is hereby waived and the foregoing is approved for signature of the judge.

Dated 10 day of May, 1932.

John C. Lawyer, Cooke, Sullivan & Ricks, Fesler, Elam & Young, Howard S. Young, Attorneys for Plaintiff. James M. Ogden, Atty. Gen. of Ind.; G. W. Hufsmith, Asst. Atty. Gen. of Ind.; Arthur L. Sullivan, Atty. for City of Martinsville, Attorneys for Defendants.

[fol. 488] SUPREME COURT OF THE UNITED STATES

STATEMENT OF POINTS TO BE RELIED UPON AND DESIGNATION OF THE PARTS OF THE RECORD TO BE PRINTED—Filed June 6, 1932

Comes now the appellant and adopts its assignments of error as its statement of points to be relied upon.

And the appellant further states that only the following parts of the record, as filed in this court, are deemed necessary to be printed by the clerk for the hearing of the case:

Title of paper	Record pages
1. Bill of complaint filed February 27, 1929, and Exhibit A attached to the bill	1 to 62
Omitting from said bill the schedule of rates in part numbered V, at pages 6 to 9, and inserting in lieu thereof the following: "Here appears the schedule of rates contained in the order of January 26, 1929, attached hereto as 'Exihibit A.'"	
Also omitting from said bill parts numbered VII, at pages 11, 12 and 13; X at pages 15, 16 and 17; and XI, at pages 17 and 18; and all of part No. IX at pages 14 and 15, except the last paragraph thereof;	
Also omitting Exhibits B and C at pages 63 to 68	
2. Answer of the defendants Singleton, et al., filed March 14, 1929	70 to 85
Omitting from said answer the schedule of	

Title of paper	Record pages
rates at pages 75 to 78 and inserting in lieu thereof the following: "Here appears the schedule of rates contained in the order of January 26, 1929, attached to the bill of complaint as 'Exhibit A.'"	
3. Order entered April 6, 1929, allowing City of Martinsville to intervene	90
4. Answer of the City of Martinsville filed April 6, 1929	90 to 103
5. Order entered April 6, 1929, granting temporary injunction	104 and 105
6. Order entered June 3, 1930, referring cause to special master	106
7. Order entered July 2, 1931, upon special [fols. 489-492] master filing report	107
8. Special master's report of his findings of fact and conclusions of law filed July 2, 1931	107 to 227
Omitting from said report the index at pages 108 to 110; findings numbered 1, 2, 3 and 4 at pages 112 to 115; findings numbered 50, 51 and 52 at pages 219 to 225; finding No. 32 at pages 185 to 189, except the first and last paragraphs thereof; finding No. 35 at pages 192 to 194, except the first twenty lines; finding No. 36 at pages 195 and 196, except the last paragraph; and the schedule of rates in finding No. VI at pages 120 to 123 and inserting in lieu thereof the following: "Here appears the schedule of rates contained in the order of January 26, 1929, attached to the bill of complaint as 'Exhibit A.'"	
9. Exceptions filed July 22, 1931, by plaintiff to report of special master	228 to 239
10. Order entered December 18, 1931, substituting West and Cuthbertson as defendants.	240
11. Order entered December 18, 1931, allowing fees of special master	241

12. Opinion of court filed February 26, 1932 .... 242 to 258
13. Special findings of fact and conclusions of law of court filed February 26, 1932 ..... 259 to 281
14. Exceptions taken February 26, 1932 by plaintiff 282
15. Final decree entered February 26, 1932, dismissing bill of complaint, etc. ..... 282 to 283
16. Petition for appeal filed May 10, 1932 ..... 284 to 285
17. Assignment of errors filed May 10, 1932 ... 286 to 294
18. Order allowing appeal entered May 10, 1932 295
19. Condensed statement of evidence taken and reported by special master, prepared in accordance with Equity Rule No. 75, approved, settled, signed and filed May 10, 1932 ..... 301 to 481
Omitting from said condensed statement the marginal page references to master's report of evidence
20. This statement of points to be relied upon and designation of parts of record to be printed.

Dated this 31 day of May, 1932.

John C. Lawyer, Howard S. Young, Counsel for Appellant.

This is to acknowledge receipt of a copy of the foregoing statement of points to be relied upon and designation of parts of the record to be printed and service of the same this 31st day of May, 1932.

Arthur Gilliom, James M. Ogden, Atty. Gen. of Ind., G. W. Hufsmith, Asst. Atty. Gen. of Ind., Counsel for Appellees.

[fol. 493] [File endorsement omitted.]

Endorsed on cover: File No. 36,825. S. Indiana, D. C. U. S. Term No. 128. Wabash Valley Electric Company, appellant, vs. Frank T. Singleton, John W. McArdle, Howell Ellis, et al., etc. Filed June 2, 1932. File No. 36,825.

FILE COPY

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SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1932.

No. 128

WABASH VALLEY ELECTRIC COMPANY,
Appellant,

vs.

FRANK T. SINGLETON, et al.,
Appellees.

APPEAL FROM THE DISTRICT COURT OF THE UNITED STATES, FOR THE SOUTHERN DISTRICT OF INDIANA.

STATEMENT AS TO JURISDICTION ON APPEAL.

GEORGE A. COOKE,
PATRICK J. LUCEY,
HOWARD S. YOUNG,
Counsel for Appellant.

FRANCIS L. DAILY,
JOHN C. LAWYER,
Of Counsel.

CHICAGO LAW PRINTING CO., 101 S. WELLS ST. FRANKLIN 6521

STATEMENT AS TO JURISDICTION ON APPEAL.

MAY IT PLEASE THE COURT:

Pursuant to Rule 12 of this court the appellant in support of the jurisdiction of this court to review the above entitled cause on appeal respectfully represents:

A.

The Judicial Code, sections 238 and 266 (U. S. Code, title 28, sections 345 and 380), provides for a direct review by the Supreme Court of the final decree of the District Court denying a permanent injunction in a suit of this character.

B.

The decree sought to be reviewed was entered on the 26th day of February, 1932, record* pp. 282 and 283.

Application for appeal was presented on the 10th day of May, 1932, record pp. 284 and 285.

C.

This appeal is from a decree of the District Court of the United States for the Southern District of Indiana in

*All references to the record are to the pages of the certified unprinted record prepared by the clerk of the District Court and on file with the clerk of this Court. The record has not been printed.

a suit of a civil nature in equity, where the amount in controversy exceeds, exclusive of interest and costs, the sum of $3,000, and arises under the constitution and laws of the United States (R. p. 114). The bill of complaint (R. pp. 2 to 26) is to enjoin the enforcement of an order (R. pp. 29 to 62) of the Public Service Commission of Indiana made January 26, 1929, effective February 1, 1929, prescribing the rates and charges to be made by the plaintiff for its electrical service rendered in the city of Martinsville, Indiana. The bill of complaint alleges that the rates and charges prescribed in said order are confiscatory (R. p. 4) of plaintiff's property used and useful in furnishing electrical service to the public and thereby plaintiff is deprived of its property without due process of law and is denied the equal protection of the laws in violation of its rights under the Fourteenth Amendment to the Constitution of the United States. An interlocutory injunction, enjoining the enforcement of said rates, was granted (R. pp. 104 and 105) by a three-judge statutory court convened pursuant to section 266 of the Judicial Code (U. S. Code, title 28, section 380). The case was heard in the District Court before three judges on final hearing (R. pp. 242 to 258) and a final decree was entered denying a permanent injunction and dismissing plaintiff's bill for want of equity (R. pp. 282 and 283).

The Judicial Code, section 266 (U. S. Code, title 28, section 380) provides for a direct appeal to the Supreme Court from a final decree denying a permanent injunction in such suit.

D.

The following decisions of this court are believed to sustain the jurisdiction of this appeal:

Clark v. *Poor*, 274 U. S. 554, 6.

Lawrence v. *St. L. Railway Company*, 274 U. S. 588.

Interstate Buses Corporation v. *Blodgett*, 276 U. S. 245, 9.

We respectfully submit that this court has jurisdiction of this appeal by virtue of sections 238 and 266 of the Judicial Code as amended by the act of February 13, 1925 (U. S. Code, title 28, sections 345 and 380).

Respectfully submitted,

GEORGE A. COOKE,
PATRICK J. LUCEY,
HOWARD S. YOUNG.
Counsel for Appellant.

FRANCIS L. DAILY,
JOHN C. LAWYER,
Of Counsel.

Received a copy of this Statement as to Jurisdiction on Appeal this ..... day of June, 1932.

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.....
Counsel for Appellees.